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LECTURES
ON
VETERINARY MEDICINE,
DELIVERED IN THE
UNIVERSITY OF LONDON,
BY
MR. YOUATT.

LECTURE XXIX.

PLEURISY IN THE HORSE, CATTLE, AND DOGS.

I MUST request your attention this evening to another of the diseases of the chest, scarcely yet recognised in our miserable nosology,—Pleurisy, or inflammation of the investing membrane of the lungs, or the lining one of the thoracic cavity. That inflammation of the substance of the lungs is often propagated to the investing membrane, and that both are at length equally involved, is not disputed. The frequent occurrence of effusion in the chest is an unanswerable proof of inflammation of the serous membrane which it contains; but the confinement of the inflammatory action strictly to the pleura is denied, I believe, in our principal school; and although the possibility of it and its supposed rare occurrence is reluctantly admitted by our best writers, they scarcely enter into the consideration of it, and Mr. Blaine alone deigns to give an outline of its characteristic symptoms. We are principally indebted to Mr. John Field for establishing the fact of the frequency of the malady, and for enabling us to distinguish between it and pneumonia, as readily and as surely as we do between pneumonia, and bronchitis, and epidemic catarrh.

Causes.—The prevailing causes of pleurisy are the same as those which produce pneumonia—exposure to wet and cold—sudden alternations of temperature—partial exposure to cold—riding against a keen wind—immersion as high as the chest in cold water—drinking cold water, and extra work of the respiratory machine. To these may be added, wounds penetrating into the thorax and lacerating the pleura, violent contusions on the side, fracture of the ribs, the inflammation produced by which is propagated through the parietes of the chest.

Extent.—It is sometimes confined to one side, or to one of the pleuræ on either side, or even to patches on that pleura, whether pulmonary or costal. The inflammation of the lungs which occasionally accompanies rabies is characterised by a singular patchy appearance. That produced on the costal pleura, arising from violence or other causes, rarely reaches the pulmonary covering; and that which is communicated to the tunic of the lungs, by means of the intensity of the action within, does not often involve the costal pleura. In some cases, however, it affects both pleuræ and both sides, and spreads rapidly from one to the other.

Symptoms.—The principal knowledge of these, besides those derived from personal observation, I owe entirely to Mr. Field. The profession generally is much indebted to that excellent practitioner. Our continental neighbours appear, however, to be well acquainted with disease, and Hurtrel D'Arboval gives a fair account of it, whose work generally will amply repay your perusal of it. The first symptom is rigor, followed by increased heat and partial sweats; to these succeed loss of appetite and of spirits, and a low and painful cough; the inspiration is a short, sudden effort, broken off before it is fully accomplished, indicating the pain felt from the distension of the irritable, because inflamed, membrane. This symptom is exceedingly characteristic. In the human being it is well expressed by the term *stitch*, and an exceedingly painful feeling it is. The expiration is retarded as much as possible by the use of all the auxiliary muscles which the animal can press into the service, and yet it also is at length cut short—it finishes abruptly in a kind of spasm. This peculiarity of breathing once carefully observed cannot be forgotten. The next character is found in the tenderness of the sides when the costal pleura is affected. This tenderness often exists to a degree scarcely credi-

ble. If you press upon the side, the horse will recede with a low painful grunt; he will tremble, and try to get out of the way before the hand touches him. Then comes another indication, both of pain and the region of that pain;—the intercostal muscles, affected by the contiguous pleura, and in their turn affecting the panniculus carnosus without there are twitchings of the skin on the side,—corrugations—waves creeping over the integument. This is never seen in pneumonia. There is, however, as we may expect, the same disinclination to move, for every motion must give intense pain.

Difference between the Symptoms of Pleurisy and Pneumonia.—Pulse. The pulse should be anxiously studied. It presents a difference of character sufficiently satisfactory. It is increased in rapidity, and instead of being oppressed and sometimes almost unappreciable, it is round, full, and strong. Even at the last, when the strength of the constitution begins to yield, the pulse is wiry, although small.

Temperature.—The extremities are never deathy cold; they may be cool, they are oftener variable, and they sometimes present increased heat. The body is far more liable to variations of temperature; and the cold and the hot fit more frequently succeed each other. The mouth is not so hot as in pneumonia, and the breath is rarely above its usual temperature.

The Membrane of the Nose.—A difference of character in the two diseases is here particularly evident. Neither the crimson nor the purple injection of pneumonia is here seen; but a somewhat darker dingier hue, yet not to any great degree, is exhibited on the membrane of the pleuritic horse.

General Appearance and Action.—Both the pneumonic and pleuritic horse will look at his flanks, pointing out the seat of disease and pain; but the horse with pneumonia will turn himself more slowly round, and long and steadfastly gaze at his side—the action of the horse with pleurisy is more sudden, agitated, spasmodic. The countenance of the one is that of settled distress, that of the other brightens up occasionally; the pang is severe, but it is transient—there are intervals of relief. While neither will lie down or willingly move, and the pneumonic horse stands fixed as a statue, the pleuritic one shrinks and crouches,—crouches almost to falling. If he lies down, it is on the affected side, when the disease is confined to one side only. The head of the horse with inflammation of the substance of the lungs, hangs heavily, that of the other is protruded.*

Auscultation.—Hence we derive most important assistance. In a case of pleurisy we have no crepitating crackling sound, referable to the infiltration of the blood through the gossamer membrane of the air-cells; we have not even a louder and distincter murmur, but perhaps no variation from the sound of health; if there is any difference the murmur is fainter; the pleural membrane is thickened, and its elasticity is impaired, and the sound is not so readily transmitted. There is sometimes a slight rubbing sound, and especially towards the superior region of the chest, as if there was friction between the thickened and indurated membranes.

Cough.—To this may be added the different character of the cough, sore and painful enough in both, but in pneumonia generally hard and full and frequent. In pleurisy not so frequent, faint, suppressed, cut short, and rarely attended by discharge from the nose.

These are sufficient guides in the early stage of the disease, and when it is most of all of importance to distinguish the one from the other.

Progress.—If, after a few days, the breathing becomes a little more natural—the inspiration is lengthened and regular, and the expiration, although still prolonged, is suffered to be completed—if the twitchings are less evident and less frequent—if the cough can be fully expressed—if the pulse softens, although it may not diminish in frequency, and if the animal begins to lie down, or walks about of his own accord, there is hope of recovery. But if the pulse quickens, and although it is smaller yet possesses the wiry character of inflammation—if the gaze at the flanks, no longer by starts, becomes fixed as well as anxious—and the difficulty of breathing continues—the difficulty of *accomplishing* it, although the efforts are oftener repeated—if patches of sweat break out; and the animal gets restless, paws, shifts his posture every instant,

* Gibson, the very best of our old writers on farriery, thus describes, although somewhat incorrectly, the symptoms of pleurisy. I give it, for it is almost the only account of pleurisy I can find among our authors. "A pleurisy, which is an inflammation of the pleura, and a peripneumony, which is an inflammation of the lungs, have symptoms very much alike, with this difference only, that in a pleurisy the horse shows great uneasiness, and shifts about from place to place. The fever, which at first is moderate, rises suddenly very high; in the beginning he often strives to lie down, but starts up again immediately, and frequently turns his head towards the affected side, which has caused many to mistake a pleuritic disorder for the gripes. The horse's ears and feet are always burning hot, his mouth parched and dry, his pulse hard and quick; even sometimes, when he is nigh dying, his fever is continued and increasing; and though in the beginning he makes many motions to lie down, yet afterwards he runs back as far as his collar will permit, and makes not the least offer to change his posture, but stands panting with short stops, and a disposition to cough till he has relief, or drops down."

is unable longer to stand, but hesitates whether he shall lie down, determines on it again and again, but fears, and at length falls rather than lies down, a fatal termination is at hand. For some time before his death, the effusion and its extent are evident enough: he not only walks unwillingly, but on the slightest exercise his pulse is strangely accelerated; the feeling of suffocation comes over him, and he stops, all of a sudden, and looks wild, and trembles; he immediately recovers himself and proceeds. There is also, when the effusion is confirmed, œdema of some external part, and that occasionally to a very great extent. This is oftenest observed in the abdomen, the chest, and the point of the breast.

Effusion.—The cause of death is that which is the result of inflammation of a serous membrane, effusion. The cavity of the chest is occupied by the exhaled fluid, compressing the lungs on every side, rendering expiration difficult, and at length impossible, and destroying the animal by suffocation. The very commencement of effusion may be detected by the adept at auscultation, by the cessation of the respiratory murmur at the sternum, and the increased grating—not the natural murmur, but a distinct grating or rubbing. Impress carefully on your memory the importance of observing the difference here—not the crepitating crackling noise as when congestion is going on—not the feebler murmur as congestion advances, and the absence of the murmur where it is completed (and that either over the whole lung, or in patches), and the murmur louder than natural where the lung is yet sound, and that sound part has double duty to perform—but the absence of the murmur, beginning from the bottom of the chest, the part which will be first occupied by the fluid, or sometimes a wheezing, gurgling, noise there when gas is extricated, and something of pneumo-thorax comes on, and the murmur evidently increased above, where the lungs are not compressed, and where they must work.

It is painfully interesting to watch the progress of the effusion—how the stilliness creeps up, and the murmur gets louder above, and the grating sound louder too, until at length there is no longer room for the lungs to play, and suffocation ensues.

When the effusion commences, the pain of the animal seems to be materially relieved; but the beating of the flanks is increased, and the nostrils become dilated, and then the dread of suffocation immediately follows.

Post-mortem Appearances.—These are various, and depend upon the disease having been pure or combined. If it originated in pneumonia, or became combined with it, both the lungs and the pleuræ will exhibit marks of inflammation, but it will often be curious to trace the ravages of disease when the membrane only is affected:—the highest degree of vascularity—patches of coagulated lymph, the action being so intense that the fluid coagulates as soon as poured out—filaments, bands, running across from the costal to the pleura. There is rarely in the horse much adhesion; this fortunately does not often take place in an animal valuable for his speed, for even in case of recovery these adhesions would incapacitate him for that extra exertion which we often require of him, and on his capability of which his value much depends. The fluid varies in quantity as well as appearance and consistence. I have known sixteen gallons contained in both sacs, pale, or yellow, or bloody, or often differing in the two sides of the thorax; occasionally, a thick adventitious coat covering the costal or the pulmonary pleura—rarely, I have said, much adhesion, but the lungs purple-coloured, flaccid, compressed, not one-fourth of their usual size, immersed in the fluid, and rendered incapable of expanding, by its pressure.

Treatment.—Here, as in pneumonia, you should bleed promptly and copiously. Next, and of great importance, aperient medicine should be administered—that—the effect of which is so desirable, but which you do not dare hazard when the mucous membrane of the respiratory passages is the seat of disease. Here you have to do with a serous membrane, and there is less sympathy with the mucous membranes of either cavity. Two drachms of aloes may be given in the usual fever medicine, and repeated morning and night until the dung becomes pultaceous, when it will always be prudent to stop. The sedative medicine would be that which has been recommended in pneumonia and in the same doses. Next should follow a blister on the chest and sides—advisable, we maintained, in pneumonia; *there* far preferable to setons; and *here* more particularly so; for we can bring it almost into contact with the inflamed surface, and extend it over the whole of that surface. An airy, but a comfortable box, is likewise even more necessary than in pneumonia, and the practice of exposure uncovered to the cold, even more absurd and destructive. The blood repelled from the skin by the contractile, depressing, influence of the cold, would rush with fatal impetus to the neighbouring membrane, to which it was before dangerously determined. Warm and comfortable clothing cannot be dispensed with in pleurisy.

Treatment during Convalescence.—I was loath to allow you even the slightest tonic in the state of convalescence after pneu-

monia. I urged you to consider the matter well before you ran the risk of kindling the fire afresh. The after treatment of pleurisy, however, is a somewhat different thing. You have in most acute cases that which is usually a remedial effort of nature, effusion—an unloading of the congested vessels—but the fluid is here poured into a cavity in which it must not remain—in which a small quantity of it will produce embarrassment of breathing, and disorganisation of the membrane on which it rests, and lay the foundation for injurious deposit and adhesion. You have not only to restore the general health of the animal, which you might be content to take sometime in doing, because you would thus be doing it more safely in pneumonia; but you have to rouse the absorbents to immediate action, and to get rid of this extraneous fluid as soon as you can, and therefore I would allow you, or I would urge you, to leave off your sedative medicines sooner, and to substitute for them diuretics. The common turpentine is as good as any, made into a ball with linseed meal, and given in doses of two or three drachms twice in the day. It is a principle as true in horse practice as in that of the human surgeon, that if you can increase the discharge of the watery part of the blood, you indirectly promote absorption. It may happen, however, that the system generally may be considerably debilitated by the violence or continuance of the disease, and the absorbent vessels, among other parts, may share in the debility. Well then, you may begin cautiously to give tonics here, and begin as soon as the violence of the disease has abated. The spirit of nitrous ether is a mild stimulant and a diuretic. Small quantities of ginger and gentian may be added to it, while the turpentine should not be omitted.

Paracentesis.—By auscultation and other modes of examination, we have ascertained the existence of effusion in the chest, and that in spite of all our means it is increasing. Is there any mechanical way of getting rid of it? Yes, there is one to which I would advise you to have recourse as soon as you are assured that there is considerable fluid in the chest, and that it is not diminishing. The operation of paracentesis or tapping may be performed. It is one of the simplest in the world. You will pass the side line over the horse, or simply use the twitch and have one of his legs held up, and, counting back from the sternum to between the seventh and eighth ribs, you will pass a moderate-sized trochar into the chest immediately above the cartilages. You will not have selected the most dependent situation, but as dependent a one as you could with safety select; for you will perceive by this thorax, that there was not room between the cartilages to have punctured lower; you must have injured them in forcing your instrument through, and, what is worse, you would have run great hazard of wounding the pericardium, for the apex of the heart rests on the sternum. Through this aperture, close to the cartilages, you will evacuate the far greater part of the fluid. You will withdraw the stilette, and let the fluid run through the canula. You will not trouble yourself afterwards about the wound; it will heal readily enough; perhaps too much so, for could it be kept open a few days, it might act as a very useful drain. *It should be attempted early.* I have said that you should have recourse to the operation as soon as you are assured that there is considerable fluid in the chest, for you will at least relieve the animal for a while; you will have given some time for repose to the overlaboured lungs, and for the system, generally, to be recruited. You will evacuate the fluid before the habit of morbid exhalation is established—before the lungs are too much debilitated by laborious action against the pressure of the water, and their substance is condensed, and a state of collapse brought on, from which they will be incapable of recovering. Those only of you who have seen the collapsed and condensed state of the lung that had been long compressed by the fluid, can conceive of the extent to which this is carried. I will add a fact important and alarming, that the records of veterinary surgery do not contain a half-dozen cases of the successful performance of the operation. This should not discourage us from attempting it, but should induce us to consider whether we may not perform it under happier auspices, and before the lungs and the serous membrane which lines the cavity have been so disorganised, and the constitution itself so sadly debilitated. I cannot see any harm that could be produced by an early resort to paracentesis. He must be a bungler indeed who wounded any important part, but it really is worth our consideration whether many a horse has not been lost by delay. You will ascertain by auscultation, whether there is fluid in both cavities. If there should be, and, in considerable quantity, it will not be prudent to operate on both sides at once. If much fluid is discharged, there will be acceleration and difficulty of respiration to a very great degree. You will not be alarmed at this; it will pass over, and on the next day you may attack the other side; or open both at once, if there is but little fluid in either.

Having resorted to this operation, you will especially be eager, as soon as you dare, to commence your course of diuretics with tonics. You must rouse the absorbents to action before the cavity fills again.

Tendency to relapse.—I think I have observed, that there is in pleurisy not only a far greater tendency to relapse, but to a return of the disease at some indefinite time, than in pneumonia. The lungs do not perfectly recover from their state of collapse, nor the serous membrane from its long maceration in the effused fluid: œdema, cough, disinclination to work, incapability of rapid progression, colicky pains, as the unobservant practitioner would call them, but, in truth, pleuritic stitches; these are the frequent sequelæ of pleurisy. This will afford another reason why we should not defer too long the important operation of paracentesis.

Metastasis.—So far as my experience has gone, there is much greater disposition to metastasis than in pneumonia: indeed it is easy to imagine, that the inflammation of a mere membrane may more readily and oftener shift, than that of the substance of so large a viscus as the lungs. The inflammation shifting its first ground, attacks almost every part indiscriminately, and appears under a strangely puzzling variety of forms. Ascites is the most frequent change. Dropsy of the abdomen is substituted for that of the chest; or, rather, the exhalent or absorbent vessels of the abdomen, or both of them, soon share in the debility of those of the thorax.

Curious case of Pleurisy.—Mr. Percivall relates an interesting case illustrative of this. A mare, in the beginning of January, had an attack of pleurisy, for which she was treated in the usual way, and which, although acute at the beginning, in the course of a few days merged into the chronic form of a more than usual obstinacy. A prodigious œdematous tumefaction, extending from the mammæ to the front of the breast, now appeared, which yielded to aperient and diuretic medicines. On the seventeenth day from the first attack, her respiration and pulse became suddenly hurried, with cold and profuse perspiration, and she began to stagger before she had lost a quart of blood; she recovered from this, and continued apparently well for a fortnight, when there appeared a swelling on the back of the right fore-leg, which seemed like a sprain, and which yielded to cold lotion and bandaging. Nine days after that there was a puffiness under the jaw; on the next day but one the swelling returned under the abdomen, and she would frequently lie stretched out at full length, groaning as if gnawed by some inward pain. A week after that she was rapidly losing flesh and strength, and was again seized with acute pneumonia. Her pulse 100, and her flanks heaving; she was bled. In the afternoon she seemed to be relieved, but she obstinately stood up, pawing occasionally, and died in the following night.

Every part of the pulmonary, pericardic, and costal pleura was thickened and indurated, and thickly clothed with adhesions of effused coagula, while about a gallon of cream-coloured fluid was found within the right side of the chest. The lungs were perfectly sound, the abdomen was distended with a serous fluid almost as limpid and colourless as water, and the mesentery and mesocolon were loaded with interstitial effusions of the same nature. It seemed to be *a disease of the serous membranes*, and points out the connexion of pleurisy with other serous affections.

PLEURISY IN CATTLE.

On this, although it is the peculiar form under which affections of the chest appear in cattle, I shall not detain you; for the causes of the disease, allowing for the different habits of oxen and horses, are similar, and the symptoms are analogous. It is preceded by rigor, and *by a peculiar trembling of the shoulders*. This is the most characteristic and the most fearful symptom of the whole. The inspirations are short, and yet consist of two distinct efforts; the expirations are long but also interrupted. There are also cold sweats, staring of the coat. The mode of treatment must be, generally speaking, the same as in the horse.

PLEURISY IN DOGS.

Cases of genuine pleurisy in these animals are not unfrequent, and I scarcely recollect a case of inflammation of the lungs, which did not ultimately become connected with, or terminate in, pleurisy. The tenderness of the sides, the twitchings, the absence of the obstinate sitting up, and the presence of a short, suppressed, painful cough, which the dog bears with strange impatience, are symptoms which chiefly distinguish it from pneumonia.

I stated in my last lecture, that the exploration of the chest by auscultation was most satisfactory in pneumonia. It is so likewise in pleurisy, and by placing the dog alternately on his chest, his back, or his side, we can ascertain to a certainty the extent to which effusion exists in the thoracic cavity. Here too, I am sorry to say, that paracentesis has rarely succeeded, and probably, in some measure, from the late period at which it was attempted. The mode of treatment differs little from that of pneumonia. In several cases, when I have been assured of incipient hydrothorax, balls composed of digitalis, tartrate of iron, and a small portion of calomel, have caused the speedy absorption of the fluid.

ST. GEORGE'S HOSPITAL.

CLINICAL REMARKS

BY

Mr. BRODIE.

April 9th, 1832.

Mezereon.—A most useful medicine in periostitis, remarked Mr. Brodie.

℞ *Pulv. cort. rad. mezerei*, gr. iv; *divide in pil.* xij, *quarum sumat.* i, *ter in die.*

Half a grain of the powdered bark of the root as a full dose; few stomachs will bear more; and in those cases where you hear of persons having taken more, you will generally find it to have arisen from the bark not having been good.

Stimuli.—I used to think that great gin-drinkers, who were admitted into the hospital for fractures, or other severe accidents, generally got worse upon the low diet of the hospital. I therefore now always allow them a certain proportion of gin. "How much have you been in the habit of drinking a day, my good fellow?" asked Mr. Brodie. "As much as I could get," was the answer. Mr. Brodie smiled, and ordered him ʒiij of gin daily.

INJURY TO THE SPINE.

In a case of this nature, in which the urine was both alkaline and bloody, Mr. Brodie remarked "that the latter symptom was rather an unusual one." In general in these cases, after the urine becomes alkaline, the fæces are black and tarry, and the sacrum becomes sore, and sloughs.

When first this patient (who is since dead) came into the hospital, he complained principally of pain over the right *dorsum ilii*, for which he was cupped with some degree of relief; and on Mr. Brodie's seeing him, and also from Mr. Fernandez's account, Mr. B., as well as many others, suspected it to be a case of *malingering*. The man first lost the use of both extremities on the one side, and then of those on the other; *he could raise himself by his own effort slowly into bed*. Mr. Brodie, however, ordered the case to be treated as if it were really one of organic affection, by small bleedings, expecting that in a few days the symptoms would clearly show whether it was one of malingering or not. On Mr. Brodie's next visit, however, all ideas of *malingering* were entirely set at rest by the state of the patient; his urine and fæces were passed involuntarily, and the former was decidedly alkaline; over the sacrum were large erysipelatous patches of inflammation, and he was, in every respect, worse. In about a week from this period the man died, and on examining his body after death, dislocation was found between the sixth and seventh (?) cervical vertebra, and *ramollissement* of the medulla spinalis beneath.

COMPOUND FRACTURE OF THE LEG.

A man was admitted with this fracture on the 30th of March; it was situated about two inches above the ankle-joint. Effusion came on under the cellular membrane, which extended up to the knee, for the relief of which Mr. Brodie punctured the limb in several places with a needle which he had made for the purpose; it tapered gradually, and was rounded off to a point, so that, as Mr. Brodie remarked, "it could wound no other part than that which came in contact with its point." Mr. Brodie hoped that, by using this instrument, he should be able to collect the serum pure, and in sufficient quantity to examine its qualities, as to its being coloured or tinged with blood. This was found, however, not to be practicable, as blood was always mixed with the serum, and it was not obtained in sufficient quantity to test it. [illegible] saline draught of the [illegible] cess of ammonia, and a [illegible] plied to the external [illegible] went on very favourably [illegible] 13th of April, when [illegible] the amount of several [illegible] upon Mr. Fernandez's [illegible] tice to examine the wound. [illegible] made on the thigh in the [illegible] femoral artery, and the hæm[illegible] arrested. When Mr. Brodie [illegible] 1 p.m., he inquired of Mr. Fernandez [illegible] which artery, the anterior or posterior tibial, the hemorrhage had proceeded. Mr. Fernandez replied, that he could not tell with certainty; the first gush he believed was from the anterior tibial, the second from the posterior tibial. The man's countenance appeared anxious, the pulse was quick, the tongue dry, the belly hard, and the bowels open. After leaving the ward, Mr. Brodie remarked—"This man, Gentlemen, is in a very precarious state; he has had bleeding from the external wound. I did not see the bleeding, and I cannot therefore tell you from what vessel it comes, nor can Mr. Fernandez, who did see it. Now if it comes from the anterior tibial artery, why we can cut down upon it and take it up, but the man's leg is infiltrated with serum, which would add much to the difficulty of the operation, and I doubt very much whether the performance

of it in the man's present state would not endanger his life; then there is the posterior tibial; why such an operation, under the most favourable circumstances, is not an ordinary one, and I really do not think it would be advisable to perform it in the present instance. Well then, under these circumstances, if the bleeding should return, the only thing that can be done is to take up the femoral artery; but even with this resource, I have known cases, but not so desperate as this, prove fatal in three days after the tying of the artery. In this case, too, this will prove a bad remedy, as it will prevent the due supply of blood to the lower part of the limb, and it is on this supply that we rest all hope of the fracture re-uniting; but, on the other hand, I do not think we can save the man's limb, and I therefore think that if the hemorrhage returns, the best plan will be to take up the femoral artery. We shall thus stop all immediate danger of hemorrhage, and give the man time to get into a better state to bear the amputating the limb. The bleeding is now stopped, but it may recur again. I have directed the man to be kept quite [illegible]t, and we shall see how he is to-[illegible]w.

14. This morning the hemorrhage [illegible]ned twice. On our visiting him, we [illegible] worse in every respect; pulse [illegible]e dry and brown; belly hard. [illegible] retired for a few moments to [illegible] Mr. Hawkins, who was the [illegible]urgeon present in the hospital, [illegible] done so, he addressed the pu-[illegible]ds similar to those above, add-[illegible]Ir. Hawkins and he thought that [illegible] chance for the man was to take up [illegible]oral artery. The patient's bed was [illegible]ore wheeled round to the light, and [illegible]st Mr. Hawkins made pressure upon the artery in the groin, Mr. Brodie cut down upon it at once, passed an eye-probe armed with a ligature beneath it, and tied it. Mr. Keate and Mr. Babington arrived during the operation, and fully coincided with Mr. Brodie on the propriety of its performance.

16. He is this day much worse; countenance very anxious; pulse quick; tongue dry and brown; hardly able to put it out; difficult respiration from purulent effusion into the bronchiæ; cough; foot and leg white and livid; scarcely possible that he can live forty-eight hours; wine and ammonia ordered.

18. Died at six p.m. yesterday; his body was examined this day, but in such a manner that *no pupil could possibly profit by it*.

After taking up the femoral artery, Mr. Brodie asked Mr. Hawkins and Mr. Babington how long a fracture was prevented uniting by taking up an artery. Neither of these gentlemen could answer the question. I do not know how long it is in human beings, said Mr. Brodie, but in animals, such as rabbits and guinea-pigs, it retards it exactly one week. If you take up the artery, and break the animal's leg, and examine the fracture a week afterwards, you will find that there is not the slightest disposition to union. I have also found that it makes the claws turn in and grow rough and scaleous, and in some instances I have found the teeth fall out. If you make two angular incisions in the upper lip, you will find that in the triangular space between them, the hair will fall out and will not grow; this I suppose arises from a deficiency of nourishing blood.

ERYSIPELAS—VENTILATION.

A few days ago, when Dr. Bright was going round the hospital with Mr. Brodie, he asked whether there were many cases of erysipelas in the wards. Mr. Brodie said that there were very few. "You know that it was the frightful fatality of this disease in the old hospital on which we grounded our representations to the board of governors, of the urgent necessity there was for having a new building erected forthwith, though when we got into it, in spite of large airy wards and improved ventilation, erysipelas was as prevalent and as fatal as ever; it was really heart-breaking to see it. Well, things went on in this way for some time in spite of all our efforts to stop it; however, Mr. Hammick, jun., of the Plymouth Naval Hospital, was here one day, and he said that the erysipelas used to rage there very much, and the way they got rid of it was to dry rub all the floors and everything that required it, and in that way the disease gradually left them. We have ever since adopted this plan as far as we have been able to do it, and have found very good results from it. Erysipelas is neither so formidable nor so frequent as it used to be, and we are freer from it now than we have been for years past."* Whilst on the subject of erysipelas, we may make a few remarks on a plan of treating this disease which has been adopted by Mr. Keate. Mr. Keate draws a piece of lunar caustic over the skin where the erysipelatous redness ends; the good that results from this method of treatment is however somewhat equivocal. In some cases the

* We are happy to be enabled to add our testimony to the truth of the above statement made by Mr. Brodie; there is not a ward in the hospital but what is large and dry, and what is still more, comfortable and convenient in every respect for the patients. Every ward has two ventilators, each of which communicates below with hot air from stoves on the basement story of the building, and above with the cool fresh atmospheric air.—*Rep.*

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April 9th, 1832.

Mezereon.—A most useful medicine in periostitis, remarked Mr. Brodie.

℞ *Pulv. cort. rad. mezerei*, gr. iv; *divide in pil.* xij, *quarum sumat.* i, *ter in die.*

Half a grain of the powdered bark of the root as a full dose; few stomachs will bear more; and in those cases where you hear of persons having taken more, you will generally find it to have arisen from the bark not having been good.

Stimuli.—I used to think that great gin-drinkers, who were admitted into the hospital for fractures, or other severe accidents, generally got worse upon the low diet of the hospital. I therefore now always allow them a certain proportion of gin. "How much have you been in the habit of drinking a day, my good fellow?" asked Mr. Brodie. "As much as I could get," was the answer. Mr. Brodie smiled, and ordered him ℥iij of gin daily.

INJURY TO THE SPINE.

In a case of this nature, in which the urine was both alkaline and bloody, Mr. Brodie remarked "that the latter symptom was rather an unusual one." In general in these cases, after the urine becomes alkaline, the fæces are black and tarry, and the sacrum becomes sore, and sloughs.

When first this patient (who is since dead) came into the hospital, he complained principally of pain over the right *dorsum ilii*, for which he was cupped with some degree of relief; and on Mr. Brodie's seeing him, and also from Mr. Fernandez's account, Mr. B., as well as many others, suspected it to be a case of *malingering*. The man first lost the use of both extremities on the one side, and then of those on the other; *he could raise himself by his own effort slowly into bed*. Mr. Brodie, however, ordered the case to be treated as if it were really one of organic affection, by small bleedings, expecting that in a few days the symptoms would clearly show whether it was one of malingering or not. On Mr. Brodie's next visit, however, all ideas of *malingering* were entirely set at rest by the state of the patient; his urine and fæces were passed involuntarily, and the former was decidedly alkaline; over the sacrum were large erysipelatous patches of inflammation, and he was, in every respect, worse. In about a week from this period the man died, and on examining his body after death, dislocation was found between the sixth and seventh (?) cervical vertebra, and *ramollissement* of the medulla spinalis beneath.

COMPOUND FRACTURE OF THE LEG.

A man was admitted with this fracture on the 30th of March; it was situated about two inches above the ankle-joint. Effusion came on under the cellular membrane, which extended up to the knee, for the relief of which Mr. Brodie punctured the limb in several places with a needle which he had made for the purpose; it tapered gradually, and was rounded off to a point, so that, as Mr. Brodie remarked, "it could wound no other part than that which came in contact with its point." Mr. Brodie hoped that, by using this instrument, he should be able to collect the serum pure, and in sufficient quantity to examine its qualities, without its being coloured or tinged with blood. This was found, however, not to be practicable, as blood was always mixed with the serum, and it was not collected in sufficient quantity to test it. The man took the saline draught of the hospital with an excess of ammonia, and a poultice was applied to the external wound. The case went on very favourably until Friday the 13th of April, when arterial hemorrhage to the amount of several ounces took place upon Mr. Fernandez's removing the poultice to examine the wound. Pressure was made on the thigh in the course of the femoral artery, and the hæmorrhage was arrested. When Mr. Brodie saw him at 1 p.m., he inquired of Mr. Fernandez from which artery, the anterior or posterior tibial, the hemorrhage had proceeded. Mr. Fernandez replied, that he could not tell with certainty; the first gush he believed was from the anterior tibial, the second from the posterior tibial. The man's countenance appeared anxious, the pulse was quick, the tongue dry, the belly hard, and the bowels open. After leaving the ward, Mr. Brodie remarked—"This man, Gentlemen, is in a very precarious state; he has had bleeding from the external wound. I did not see the bleeding, and I cannot therefore tell you from what vessel it comes, nor can Mr. Fernandez, who did see it. Now if it comes from the anterior tibial artery, why we can cut down upon it and take it up, but the man's leg is infiltrated with serum, which would add much to the difficulty of the operation, and I doubt very much whether the performance

of it in the man's present state would not endanger his life; then there is the posterior tibial; why such an operation, under the most favourable circumstances, is not an ordinary one, and I really do not think it would be advisable to perform it in the present instance. Well then, under these circumstances, if the bleeding should return, the only thing that can be done is to take up the femoral artery; but even with this resource, I have known cases, but not so desperate as this, prove fatal in three days after the tying of the artery. In this case, too, this will prove a bad remedy, as it will prevent the due supply of blood to the lower part of the limb, and it is on this supply that we rest all hope of the fracture re-uniting; but, on the other hand, I do not think we can save the man's limb, and I therefore think that if the hemorrhage returns, the best plan will be to take up the femoral artery. We shall thus stop all immediate danger of hemorrhage, and give the man time to get into a better state to bear the amputating the limb. The bleeding is now stopped, but it may recur again. I have directed the man to be kept quite quiet, and we shall see how he is to-morrow.

April 14. This morning the hemorrhage has returned twice. On our visiting him, we found him worse in every respect; pulse 114; tongue dry and brown; belly hard. Mr. Brodie retired for a few moments to consult with Mr. Hawkins, who was the only other surgeon present in the hospital, and having done so, he addressed the pupils in words similar to those above, adding that Mr. Hawkins and he thought that the only chance for the man was to take up the femoral artery. The patient's bed was therefore wheeled round to the light, and whilst Mr. Hawkins made pressure upon the artery in the groin, Mr. Brodie cut down upon it at once, passed an eye-probe armed with a ligature beneath it, and tied it. Mr. Keate and Mr. Babington arrived during the operation, and fully coincided with Mr. Brodie on the propriety of its performance.

16. He is this day much worse; countenance very anxious; pulse quick; tongue dry and brown; hardly able to put it out; difficult respiration from purulent effusion into the bronchiæ; cough; foot and leg white and livid; scarcely possible that he can live forty-eight hours; wine and ammonia ordered.

18. Died at six p.m. yesterday; his body was examined this day, but in such a manner that *no pupil could possibly profit by it.*

After taking up the femoral artery, Mr. Brodie asked Mr. Hawkins and Mr. Babington how long a fracture was prevented uniting by taking up an artery. Neither of these gentlemen could answer the question. I do not know how long it is in human beings, said Mr. Brodie, but in animals, such as rabbits and guinea-pigs, it retards it exactly one week. If you take up the artery, and break the animal's leg, and examine the fracture a week afterwards, you will find that there is not the slightest disposition to union. I have also found that it makes the claws turn in and grow rough and scaleous, and in some instances I have found the teeth fall out. If you make two angular incisions in the upper lip, you will find that in the triangular space between them, the hair will fall out and will not grow; this I suppose arises from a deficiency of nourishing blood.

ERYSIPELAS—VENTILATION.

A few days ago, when Dr. Bright was going round the hospital with Mr. Brodie, he asked whether there were many cases of erysipelas in the wards. Mr. Brodie said that there were very few. "You know that it was the frightful fatality of this disease in the old hospital on which we grounded our representations to the board of governors, of the urgent necessity there was for having a new building erected forthwith, though when we got into it, in spite of large airy wards and improved ventilation, erysipelas was as prevalent and as fatal as ever; it was really heart-breaking to see it. Well, things went on in this way for some time in spite of all our efforts to stop it; however, Mr. Hammick, jun., of the Plymouth Naval Hospital, was here one day, and he said that the erysipelas used to rage there very much, and the way they got rid of it was to dry rub all the floors and everything that required it, and in that way the disease gradually left them. We have ever since adopted this plan as far as we have been able to do it, and have found very good results from it. Erysipelas is neither so formidable nor so frequent as it used to be, and we are freer from it now than we have been for years past."* Whilst on the subject of erysipelas, we may make a few remarks on a plan of treating this disease which has been adopted by Mr. Keate. Mr. Keate draws a piece of lunar caustic over the skin where the erysipelatous redness ends; the good that results from this method of treatment is however somewhat equivocal. In some cases the

* We are happy to be enabled to add our testimony to the truth of the above statement made by Mr. Brodie; there is not a ward in the hospital but what is large and dry, and what is still more, comfortable and convenient in every respect for the patients. Every ward has two ventilators, each of which communicates below with hot air from stoves on the basement story of the building, and above with the cool fresh atmospheric air.—*Rep.*

lunar caustic appears to have little effect, as the inflammation sometimes spreads over this boundary-drawn line—in other cases however it does not. One patient, who was treated with the lunar caustic, died of inflammation of the pleura. Mr. Brodie's plan of treatment is, to apply cold evaporating lotions externally, and give saline medicines internally; he has a patient who has had three separate attacks of erysipelas within the last three weeks who has been treated thus, and who has each time recovered.

Remember, Gentlemen, that whenever a knee-joint gets weak, it is a sure sign that the patient is recovering.

CHRONIC INFLAMMATION OF THE TESTIS.

In a case which has been in the hospital for some time past, and which has been treated with mercury, Mr. Brodie remarked, that the gradual improvement that had taken place in the symptoms, warranted him in concluding that mercury was the best remedy that could be administered in this disease. "Many years ago, when I was a student here—I think it was in 1809—the surgeons of this hospital were in the habit of amputating the testicle for the cure of this disease, and the operation of castration was then as common as it is now rare; these cases used to be mistaken for ulcerated testicle. If you do not do anything for them, but leave them alone, you will find the testicle adhere to the inner surface of the scrotum, the skin will become red, inflamed, and then burst, and a fungous tumour will be protruded; this fungus is, in reality, the testicle itself; in some cases you will have an abscess form in the body of the testis, and a yellow cheesy laminated matter will be discharged, which will continue for a length of time. I used to think that the original seat of this disease was in the epidydimis, but on examining some of these diseased testes, I have found that it is in the inner lining membrane of the excretory duct, in which small granular bodies are interspersed, and if you squeeze these you will find a yellow cheesy matter exude from them. In advanced stages of the disease, the whole body of the testicle becomes filled with these granular masses, which seem to take the place of the subati testes. In some cases, in the most advanced stages, the testicle becomes shrivelled up to the size of the tops of your four fingers, and hangs by a very thin, slender, spermatic chord. I had a case of this chronic enlargement of the testicle some years ago in the hospital, and I amputated it; however, after the operation, the other testicle became diseased, and I then exhibited mercury, and since that time I have always used it successfully. There are some cases, however, that mercury will not cure, and there sarsaparilla does good. I never give potash (in answer to a question from the house-surgeon) but in cases of scrofulous affection of the testicle. This case was preceded by gonorrhœa, and what is very strange is the fact, that this disease may run to a very great length, and yet not stop the natural secretion of the organ. I know a gentleman who had this disease, and who yet had a very large family.

CASE OF HYDATID

FOUND IN THE

FOURTH VENTRICLE OF THE BRAIN.

To the Editor of THE LANCET.

SIR,—Should you think the following case merits publicity, you will oblige me by inserting it in your valuable journal.

I am, Sir, yours very respectfully,

GEORGE DAGLEISH, Surgeon, &c.

Wigan, April, 1832.

CASE.

On the 20th of March I was requested to visit Rd. Catterall, a labourer, ætat. 27, and found him complaining of the ordinary symptoms of fever in the early stage,—pain in the head and back, weariness of the limbs, and heat of skin, which had been preceded by rigors in the early part of the day. The pulse, however, did not exceed fifty beats in the minute, was full and labouring resembling that of a person under the influence of pressure on the brain. His tongue was coated with a brown fur, bowels constipated, and he had several times vomited large quantities of bilious matter. Finding from the history of his case that he had been for several weeks affected with *general malaise*, and occasional severe pain in the head, I was led to suspect some organic lesion in the brain, which had occasioned effusion either between the arachnoid and pia mater, or within the ventricles. I therefore bled him to twenty ounces, administered a powerful cathartic, and afterwards two grains of calomel, with two of antimonial powder every four hours, accompanied with a simple saline mixture; cold evaporating lotion was constantly applied to the forehead, and he was ordered to be kept in bed.

On the 22nd he was much relieved, his bowels having acted freely; yet the pulse remained as before. His head was not quite well, and he had occasional throbbings in it, which was the only unpleasantness he seemed to experience. *Hab.*

hirudines xij *temporibus, et applicantur emp. lyttæ nuchæ. Cont. med. alia.*

On the 24th he was materially better, having walked out; was quite free from pain, and complained merely of debility. I wished him to continue the calomel, and gave him small doses of the sulphate of quinine, and considered him so much better, that I fancied my former prognosis might possibly be an erroneous one. With this impression, I requested that if he should find himself worse, he would immediately apprise me.

I heard nothing more of him until the 30th, when I was summoned to attend him, in consequence of a sudden accession of severe pain in the head, which was at times so urgent as to occasion him to shriek and exclaim in a manner indicative of the greatest suffering. His pulse was still at 50, full, and labouring. I tied up his arm, and took away sixteen ounces of blood, and for the first time I perceived an alteration in the pulse. Prior to syncope coming on, it rose to 90, and after he recovered from fainting he expressed himself as being much better, and his pulse shortly fell again to 50. I ordered his head to be shaved, cold lotion to be applied, and two grains of calomel to be given every four hours.

On the 2nd of April I again visited him, and found him very little better, although he thought himself easier. His countenance had now for the first time put on a death-like aspect, and I found, that for an hour at a time he would remain apparently composed, when, suddenly, severe paroxysms of pain would come on, and continue most excruciating for ten minutes, after which he would fall into a sleep for a short time. In the evening of this day he seemed tolerably quiescent, and his friends expected him to pass a comfortable night, when suddenly he raised himself up in bed and immediately expired.

Post-mortem examination.—I obtained permission to open the head eighteen hours after death, notwithstanding there is in this part of the country such a great abhorrence of necrotomy. After removing the dura mater, the pia mater was found considerably gorged with blood; the arachnoid membrane appeared opaque, and in some parts a little thicker than natural, particularly about the base of the brain. The substance of the brain was softer than usual, and the lateral ventricles containing upwards of twelve ounces of fluid. On opening the 4th ventricle, which was much enlarged, an hydatid presented itself, equal in size to a pigeon's egg, and containing about two drachms of fluid. We were not permitted to examine any other part of the body.

Remarks.—My principal reason for troubling you with this case, is on account of hydatids being rarely met with in the human subject, though I believe one of common occurrence in the lower animals. The above patient had for the last four or five years complained of severe shooting pains in the head, although on the whole his general health was tolerably good. It is somewhat remarkable, that during the whole of his illness he was never in the least degree delirious, excepting when the pain came on in such a violent manner. Vision was not the least affected, nor was there any irregular movement of either eye-ball.

CASES OF

CONGENITAL DEFICIENCY OF BOTH EYES.

By JOHN WALKER, *one of the Assistant Surgeons of the Manchester Eye Institution, &c.*

THE subjects of this notice are two children (sisters), the elder five years of age, the younger four months. It may be mentioned by the way, that the parents have an intermediate child, a boy, happily free from this lamentable defect. Exactly the same appearances are observable in both. Instead of the natural convexity of the eye-lids, supported by the globe, they have the sunken appearance commonly presented where the contents of the orbit have been evacuated or removed. The aperture between them is very small, not exceeding a quarter of an inch in the transverse direction, but they appear to possess the usual muscular movements.

The orbit appears to be occupied merely with the common cellular substance, which affords little resistance when the finger is applied over the lid. When the children cry, copious lachrymation takes place, proving the existence of a lachrymal gland, but the tears always roll down the cheeks in consequence of the non-existence of the puncta lachrymalia. So that, in a word, these cases may be described as consisting in a total absence of the globe of the eye from each orbit, attended with a like deficiency of the lachrymal passages. For an opportunity of witnessing these singular cases I am indebted to my friend M. Joynson, surgeon, of this town, the medical attendant of the family.

A case of similar description has not been seen by any of my medical friends who have examined these children, nor am I aware of any published account; this notice will therefore, I trust, be interesting, as affording an additional fact in the history of

malformations. Malformations of different parts of the eye are not unfrequently seen. At the Ophthalmic Institution in this town, we have witnessed cases of congenital deficiency of the iris, both total and partial; partial deficiency of the palpebræ, &c. An interesting case lately presented itself where the cornea, and consequently the iris, were of a very unusual size, occupying nearly the whole of the globe usually covered by the conjunctiva, so that scarcely any of the white of the eye could be seen. There was no projection nor any appearance of disease, except slight opacity of the cornea. This occurred in both eyes. The infant was brought to the institution a few days after birth.

Manchester, May, 1832.

SALINE TREATMENT IN TYPHUS FEVER AND CHOLERA ASPHYXIA.

CLAIMS OF DR. KNIGHT TO ITS ORIGINAL PROPOSITION.

To the Editor of THE LANCET.

SIR,—As the fearless asserter of right wherever you may find it, as one devoted to the best interests of society as far as they are involved in the development of medical talent, I confidently anticipate that you will afford me a brief space in your Journal, whilst I again call the attention of the profession to the use of certain alkaline salts, now so happily developed in the Coldbath Fields prison, though in doing so I should descend to notice my pretensions to priority and originality in this practice. From the statements, originating from medical men holding high official situations, published lately in THE LANCET and other medical periodicals, exemplifying the curative powers of certain saline preparations in the treatment of cholera asphyxia and typhus fever, and from the total silence observed by them relative to the cases that I have from time to time published, illustrative of this practice, I am led to apprehend that I may have laboured under a mistake, when I considered my mode of treating typhus fever and the cholera of these climates, to be not only original, but to have been calculated to form no less than an epoch in the annals of medicine.

Have I claimed that which belongs to another? I am not aware that I have, and I feel convinced that I have not; but if I have, permit me without delay to disclaim any such intention,—a disclaimer which the papers you have, not only lately but formerly, published for me relative to this practice, will fully bear out, incontestably showing that I have acted with good faith. I am led into this train of thought chiefly by the letter of Mr. Wakefield, relative to the "saline treatment recommended by Dr. Stevens," and adopted in the treatment of the patients in the Coldbath Fields prison. I have hitherto imagined, that my letter in *The Times* of 21st June last, was the first publication that, *founded on practice*, advised, and I trust on scientific principles too, and not as a vague speculation, the *saline treatment* in the cholera asphyxia; and that the case published in THE LANCET, January 26th, 1828, p. 624, and not in 1827, as I erroneously stated in a former letter, was the first case on record wherein the carbonate of soda has been stated to be given as a "*principle of practice*" in a fever, frequently of the most dangerous typhoid species; and that the saline treatment with the carbonates and subcarbonates of soda and potassa, occasionally joined with preparations of the nitrass potassa, for the cure of typhus fever, adopted in 1825, the particulars of part of which you did me the favour to publish in THE LANCET, June 1830, and again in February and March last, was the earliest time that these medicines had been so applied. With this impression, and being ignorant that either Dr. Stevens or any other man has any prior claim, I crave permission to reiterate my pretensions, though they are only denied by implication, a mode frequently as insidious as it is impertinent, and to insist upon my right, whatever that may be. *I have given dates, places, and persons' names*; I have never used any kind of secrecy; I have never communicated my views to a few privileged individuals only; openly I have practised, and as openly I have stated the results.

This, Sir, is the basis on which I rest my claim to the merit of instituting a new, and, as I think, a greatly improved practice in the treatment of typhus fever, and fevers with the typhoid type, and cholera asphyxia. It is very easy to show if I am in error, and I challenge any one to do so; but at the same time I disclaim every intention, every wish, to appropriate to myself that which, in my conscience, I do not believe to belong to me.

I am, Sir, your most obedient servant,

PAUL SLADE KNIGHT, M.D.

15, Connaught Terrace, May 5th, 1832.

TREATMENT OF MALIGNANT CHOLERA.

To the Editor of THE LANCET.

SIR,—After the numerous and some ably written articles on the treatment of cholera in your valuable journal, it may appear tedious and presumptuous in me to offer an opinion on the subject, and did I not feel that I was doing an act of justice to the medical profession and to the public, I should have remained silent. Knowing your liberality and desire to promote any information that might be useful, I am induced to draw up a plan of treatment which has been very successful in those cases which have fallen under my care, having reported to the Board of Health upwards of 160 cases, in consequence of my filling the situation of surgeon, &c. to the poor of St. John's, Southwark, the major part of which cases have been of the very worst character.

In the early commencement of the disease, and during the three first weeks, I adopted the different plans laid down by medical authors, which plans proved very unsuccessful; almost every case died. I was then induced to try a plan of treatment of my own, which plan proved successful. When called to a case with all the bad symptoms of cholera, viz., vomiting and purging of rice-coloured fluids, cramps in the arms and legs, at times in the region of the stomach and diaphragm, coldness of the whole body, great prostration of strength, sunken eyes, &c., the pulse scarcely to be felt at the wrist, the fingers and toes drawn and contracted, and attended with great thirst, I commenced with giving, immediately, two grains of the extract of belladonna, washed down in one drachm of the tincture of ginger, with three drachms of water, and repeated in ten minutes if the cramps and sickness continued. Mustard poultices to the whole of the chest, abdomen, and spine, were kept on till the patient complained of great pain and uneasiness, and the pulse increased in volume, which generally took place in about fifteen minutes. I then commenced with giving three grains of calomel with half a grain of powdered opium, every hour for four hours, keeping at the same time the patient from taking any kind of fluid, save and except a teaspoonful of toast-and-water occasionally to wet his or her lips. This treatment, I am happy to say, has proved itself truly satisfactory. Taking the average of cases, I have been able to save eight out of twelve, where all the bad symptoms of cholera have prevailed. After the lapse of six or eight hours, if the patient has not had an evacuation, nor passed water, which is one of the characteristic symptoms of cholera, I gave half a drachm of powdered rhubarb with a little conf. aromat. every three or four hours, with a mild emollient glyster; this generally produced the desired effect, and my patients did well, leaving great debility, &c. At times, after the first stages of the disease, consecutive fever followed; this I have found yield best to carbon. sodæ, in doses of five grains every three or four hours, with mild diluents, veal, or chicken broth, with rice boiled in it; then avoiding all stimulants until all inflammation or fever have subsided. I am, &c.

WM. MISKIN, Surgeon, &c.
8, Broad-street, Horselydown,
May 4th, 1832.

CASE OF

MALIGNANT CHOLERA.

RELATED BY THE PATIENT.

To the Editor of THE LANCET.

SIR,—Having experienced in my own person a violent attack of the prevailing epidemic, I am induced to give publicity to the case in consequence of the very unfavourable auspices under which it was treated. Previously to detailing the particulars of the case, I ought to say that to the unremitting kindness and attention of the medical attendants, my restoration to health is entirely due.

I am 22 years of age, and a pupil of St. Bartholomew's Hospital. About three months since, having wounded my hand in dissecting, so much irritative fever ensued as greatly impaired my general health. In this weakened state of constitution, when the cholera made its appearance in this city I became much engaged with Mr. Kiernan and M. Halmagrand in prosecuting their investigations into its nature, assisting in many post-mortem inspections, as well as several times witnessing the various precursory symptoms of the disorder. On Thursday, the 12th of April, I attended as Mr. Kiernan's assistant to inspect a case of malignant cholera which had proved fatal, in New Street, Cloth Fair, and on the morning of the following Saturday I was present at an examination in the same house, of a woman who had struggled with the disease for several days, and had died in the last or typhoid stage of the complaint. During the afternoon I felt a degree of lassitude, and had two loose and griping evacuations with a painful sensation, as if my stomach and intestines were spasmodically affected, although I had carefully ab-

stained from all indigestible food. About 12 p.m. I was seized with violent spasms of the stomach and bowels, and also of the legs and arms, accompanied by great sickness, the fluid ejected resembling oat-meal gruel, with an admixture of some dark substance having the appearance of tea-leaves. Mr. Burridge, the gentleman who first saw me, immediately sent for Dr. Waller and Mr. Kiernan. My face and tongue were then quite cold, and likewise my upper and lower extremities, which were violently convulsed, resembling the spasmodic twitchings of an animal subjected to galvanic influence. These occurred several times in the space of a minute, and were accompanied occasionally by a much more painful contraction of the muscles, in which the toes seemed forcibly pulled in contrary directions; my eyes were sunken and surrounded by dark areolæ, and the pulse, which was exceedingly small, was above 100. Dr. Waller, who arrived first, instantly applied bottles of hot water to my feet, and warm flannels to the abdomen, at the same time enveloping me in thick blankets, and raising the temperature of the room as much as possible by a large fire; two grains of opium in two ounces of white brandy, with a little hot water, were then administered, and I was requested to resist the inclination to vomit. During the spasms Dr. Waller employed friction with his hand. This treatment was persevered in for some time, with evident signs of re-action. At the expiration of a few hours, a profuse perspiration broke out, and the spasms gradually lessened in severity. The diaphoresis was continued through the night, and during the whole of the following Sunday, I dozed at intervals, with a low muttering delirium. My thirst was excessive. Dr. Waller, Mr. Kiernan, and Mr. Burridge, remained with me all night, and administered occasionally hot brandy and water. At noon, on Sunday, the spasms had almost entirely subsided, and the sickness and inclination to go to stool were very much abated. Towards evening however there was an increased excitement of the arterial system, and a slight return of the cramps, with great restlessness, which were in a great measure subdued by the administration of two grains of opium, with some hot brandy and water. The night was passed in dozing, interrupted by incoherent talking, and I was conscious of a painful sense of weight on the sensorium. On Monday the 16th, I was proclaimed out of danger, when all the unpleasant symptoms had disappeared. The secretion of urine was entirely suspended until the Sunday night. My bowels were relieved three times. On Monday the first motion was scybalous; the second seemed to be that fluid peculiar to the disease, and the third consisted entirely of very viscid and acrid bile. From this time I have gradually improved, although the disease has left great debility and weakness, with irritability of the stomach and intestines, obliging me repeatedly to have recourse to opium.

In this case fear could not in any degree have operated as a predisposing cause, as I had not felt any. It is necessary perhaps to observe, that at the time I contracted the disease, my health was in a much more improved state than when first I visited persons labouring under this malady, and attended the *post-mortem* examinations of their bodies. But this was the only body which I had opened where death had occurred in the *typhoid* stage of the complaint.

I am, Mr. Editor,
Your humble obedient Servant,
PROTHEROE SMITH.

8, Montague-place, St. Bartholomew's, April 24, 1832.

NEW ALKALOID PRINCIPLE.

To the Editor of THE LANCET.

SIR,—I take the liberty of sending you the process for preparing a new alkaloid principle which I have lately discovered, and beg the favour of its insertion in the pages of your valuable publication.

Process.—This substance is found in the root and leaves of the *arum maculatum*, and appears to possess the concentrated, poisonous, and acrid part of the plant. I have called it aronia (from ἀρον, the name given by Dioscorides to the Arum). The best method for obtaining it is, to bruise the whole herb, with the roots, into a pulp, and wash well with boiling water, till everything soluble is taken up. By standing, the infusion deposits a fecula, consisting of starch and chloro-phylle. The liquid is then to be decanted, and nitrate of lead added, until it ceases to throw down anything. Filter, and reject the precipitate; pour a solution of pure potassa into the clear fluid, and a fine orange-coloured precipitate will fall, which must be separated, washed with pure water, dried, and then boiled with dilute sulphuric acid, which will form a soluble sulphate of aronia, and an insoluble sulphate of lead, if an excess of the nitrate was added. Filter, and evaporate. A gummy mass of sulphate of aronia will thus be obtained, from which the base may be separated by solution in water, and precipitation by an alkali.

Properties.—Aronia exists as a white powder like veratria; taste, bitter; taste of the sulphate, very acrid and bitter; it restores the blue colour of reddened litmus paper, is insoluble in water, soluble in alcohol, and insoluble in ether. A grain of it held over a spirit-lamp on a slip of glass turns red when touched with a drop of nitric acid, but is not affected by protomuriate of tin. Two pounds of the arum yield about thirty grains of aronia.

I am, Sir, yours obediently,
G. Bird.

Seymour Street, Euston Square,
May 1.

DR. AYRE.

To the Editor of The Lancet.

Sir,—In consequence of the extraordinary appearances of a case, given by Dr. Ayre, in The Lancet of last week, both incorrectly, and without authority, in which my name appeared, I have the sanction of Dr. Alderson to state, that the case was one of a strictly private nature, and that Dr. Ayre had no participation in the treatment, nor did he receive or request any permission from Dr. Alderson to publish it. The *real* facts of the case are essentially different from those detailed by Ayre, and are corrected as under:—

Dr. Ayre's Report.	*Corrected Statement.*
"He was first seen by Mr. Clay of the Cholera Hospital, and Dr. Alderson, who bled him to ℥viij."	The case was seen at one o'clock p.m., on April 17th, by Dr. Alderson, Messrs. West and Fullam. He was bled by Mr. West, at Dr. Alderson's request, to ℥x. I first saw the patient at four p.m., and had immediate recourse to the hot-air bath.
"Twelve grains of calomel and two grains of opium, with two grains of calomel, and ¼ of a grain of opium every hour."	Ordered by Dr. Alderson 10 grs. of calomel and 1 gr. of opium, with 2 grs. of calomel and ¼ gr. of opium every hour. In addition to the hot-air bath, I administered, in divided doses, 2 drachms of tinct. opii to allay the severe vomiting and cramp.
"He was again bled in the evening, but with no apparent benefit."	At five p.m., finding that no decidedly beneficial impression had been made, on the contrary, that the facies cholerica became more strongly marked, the arterial pulsation at the wrists more indistinct and intermitting, spasmodic action more intense and aggravated, &c., and adopting the physiological views and practical deductions of Bell, I bled the patient to ℥xvj, with the happiest and the most pleasing result. At each jet of blood, the pulse appeared to grow, as it were, under the finger, the over-laboured heart began to resume its natural tone and energy, the spasms relaxed, and the cerulean hue faded from the countenance.
"The calomel and opium were continued uninterruptedly till the secretion of the liver was restored."	April 18th, two p.m. To repeat the calomel without opium every three hours. On the 19th, gums swollen, omit the calomel altogether. 22d. Convalescent. Mouth sore.
"Had not any soreness of the mouth from calomel."	The calomel was given with a view to its constitutional effect, and omitted when that was obtained.
"At the moment I am writing, this town is, I believe, without a case of the disease."	Hull, April 23, 1832.
"Hull, April 23, 1832."	Mrs. Longstaff, seized at 4 a.m., died at 1 a.m. on the 24th. Reported to the hospital at 4 a.m.; seen by myself at 5, and by Dr. Alderson at 8 a.m. — Pashley, seized at 6 a.m., died on the 25th. Seen by Mr. Casson and Dr. Alderson at 6 a.m. Also a child (Ralph) died at 5 a.m. Reported by Mr. R. Craven.

The insertion of the above in the next Number of your valuable publication, will much oblige

Your obedient servant,
H. Clay.

Hull, May 1, 1832.

The Dublin Journal of Medical and Chemical Science. No. II. May, 1832.

THE second number of this journal has given us considerable satisfaction. With an approach to the requisite augmentation of size, the quality of its original contents is highly respectable, and the arrangement and selection of the miscellaneous articles display no ordinary judgment. Of the spirit, talent, and independence, of its reviews, we can also speak favourably.

CASES OF ANEURISM.

The first article is a brief but instructive paper by Mr. Cusack, on the treatment of three cases of circumscribed, and one of diffused false, aneurism at the bend of the elbow, a topic in practical surgery, concerning which there still prevails some difference of opinion. Some surgeons maintain that both forms of the disease require operation, others contend that compression suffices for their cure. Again, some apply a ligature upon the bend, above the aneurism, and depend upon the absorbents for the removal of the tumour, whilst others open the aneurism and the artery, above and below the wound. Neither, it appears, have the supporters of compression determined unanimously the place where it should be applied, nor upon the degree of the application, some directing violent pressure to be made on the vessel above the aneurism, in order to obliterate its canal, while others use very slight pressure on the aneurismal tumour itself.

In the cases reported, much light is thrown on the comparative merit of two of these modes of practice. The first was in consequence of an accident which the author by an almost pardonable bull, terms, "a puncture in *venæsection*," although no vein had been opened during the operation. On inspection, a firm pulsatory tumour, about the size and shape of a pigeon's egg, was detected in the bend of the arm, along the course of the brachial artery, with which it appeared intimately connected. It became smaller when compressed, but resumed its original size when the pressure was removed. The integuments were perfectly healthy. The case being, as the reporter states, evidently one of circumscribed false aneurism, not complicated with wound of the v in, and unattended with inflammation, it was considered favourable for the trial of compression. The antiphlogistic system of Valsalva was put into moderate operation: a thin compress of wetted lint was laid upon the aneurism, and a roller bandage applied from the fingers to the bend of the arm, care being taken that the compression should not extend above the aneurism. The turns of the bandage above the aneurism were very loosely applied. The bandage was occasionally opened and reapplied during the treatment, which lasted for thirty days, at which time "there was no trace of the aneurism, the brachial artery could be felt pulsating strongly beneath the cicatrix in the integuments, and the radial pulse was as full as at the opposite side. Eighteen months after the patient's dismissal from the hospital he was again examined, and the completeness of the cure ascertained.

The second case was of precisely the same description, and its treatment conducted in the same manner. On the fiftieth day there was no trace of the aneurism, and the artery which had been wounded could be felt pulsating strongly beneath the cicatrix at the bend of the arm.

The third case is rather more interesting than its predecessors. An oval pulsating tumour, the size of an orange, was situated in the bend of the arm; its long axis corresponded with the brachial artery, to which vessel it adhered intimately. The integuments were free from inflammation. For eight days the same treatment was adopted as in the previous examples, but on the 9th, matters assumed a different aspect, which the author thus describes:—

"On the following morning, he complained of great pain in the arm, principally referred to the tumour, and stated that he had passed a restless night. On removing the bandage, it became evident that the aneurism had ceased to be circumscribed; it extended up along the inner edge of the biceps muscle, towards the axilla, for several inches. The whole swelling, but particularly the upper part, was soft and fluctuating, and the pulsation throughout was not very distinct. As the case had clearly changed its nature, it became necessary to consider what was the best mode of treating it, it now being a case of diffused false aneurism. In consultation it was determined to treat it as a wounded artery; accordingly, an incision was made

along the course of the original aneurismal swelling, including the cicatrix, through both skin and fascia. The coagula having been turned out, a gush of florid red blood directed the operator to the artery at the bottom of the cavity; the aperture in the vessel was perfectly circular, and engaged at least half of its diameter. The hemorrhage continuing after the ligature was applied above the wound in the vessel, another was applied below; the hemorrhage instantly ceased; light dressings were applied, and the arm laid upon a pillow. The ligatures were cast off on the 12th day, and on the 30th day he left the hospital quite well."

From the preceding cases, the author derives the following inferences; first, that the form of aneurism to which pressure is most applicable, is that of circumscribed, false aneurism, free from inflammation of the sac or adjacent parts; secondly, that the pressure should be applied to the tumour alone, and not to the artery above, and that the degree of pressure should be slight, lest the aneurism should subsequently become diffused; and thirdly, that the old opinion of the obliteration of the artery at the part wounded is "*in the majority of cases*" erroneous, and without foundation. We place the preceding words in italics, for the purpose of mingling our commendation of the author's skill in the reporting of these valuable cases, with a friendly hint, that he should not be so apt to draw general inferences from facts so limited in number. How can we rationally conclude, that the phenomena of *three* cases of any disease prove the nature of the majority? This is one of the many examples we perpetually meet of premature generalization, a fault which we trust the author will eschew in future essays.

OPIUM IN LARGE DOSES.

The second paper is by Dr. William Stokes, of the Meath Hospital; and, like all his contributions to the therapeutic science, is of decided and truly practical value. It is entitled "Clinical Observations on the exhibition of Opium, in large doses, in certain cases of Disease." We extract the conclusions he derives from his observations, premising that a cautious perusal of the details has satisfied us of the correctness of every position he advances.

"The following conclusions appear justifiable from the facts now recorded:—

"1st. That in certain cases of inflammation of serous and mucous membranes, where depletion by blood-letting or other antiphlogistic measures are inadmissible, and the system in a state of collapse, the exhibition of opium has a powerful effect in controlling the disease.

"2nd. That under these circumstances, the remedy may be given in very large doses, with great benefit and safety.

"3rd. That its effect then is to raise the powers of life, and remove the local disease.

"4th. That the poisonous effects of opium are rarely observed in these cases; the collapse and debility of the patient appearing to cause a tolerance of the remedy.

"5th. The cases in which the utility of this practice has been ascertained, are as follow:—

"Simple peritonitis, in a stage where bleeding cannot be performed. Low puerperal peritonis. Peritonis from perforation of the intestine; from the opening of an abscess into the sac; or lastly, after the operation of paracentesis in debilitated subjects. Violent diarrhœa, supervening in an exhausted subject. Phagedenic ulceration of the throat, in a similar individual. And cases of chronic gastritis, and gastro-duodenitis in patients exhausted by the long continuance of the disease.

"6th. The cases in which this mode of treatment would be probably useful are,—peritonitis from rupture of the bladder, or uterus, traumatic rupture of the intestine, or after the operation for strangulated hernia."

The doses of opium were very liberal, frequently a grain an hour for eight, ten, or twelve hours; in one case a man took upwards of 100 grs., without experiencing the least narcotic effect.

SPONTANEOUS AMPUTATION OF THE LIMBS OF THE FŒTUS.

In the third paper we find some very interesting observations on this obscure subject by Dr. Montgomery, Professor of Midwifery in the Irish College of Physicians. The fact of the occasional separation of the limbs of the fœtus is mentioned by several writers, the great majority of whom attribute the occurrence to the effect of inflammation and gangrene. It seems, however, that in all the distinctly described cases, no absolute evidence of any such disease was observed; the stumps were, in fact, healed, and no change of colour was percep-

tible. A curious example of an approach to this occurrence in the author's practice has afforded him the opportunity of clearly explaining at least one of its causes, and one which is totally different from inflammation, or any of its effects.

"Observing the unusual figure of the head, I laid by the fœtus for examination, and having placed it in clean water for the purpose, I was greatly struck with the appearances it presented.

"The circumstance which most forcibly attracted my attention was, the appearance of distinct ligaments on the limbs; and examining closely, I found them in the following condition:—

"There were distinct threads, of, I presume, organised lymph passing from both hands to the legs; at one end these threads, which very much resembled the kind of thread called ardis, had formed a complete ligature round the middle of each hand, causing a distinct depression where it passed, the part of the hand below it being almost completely undeveloped; from the hands these threads descended, at both sides towards the legs, which were crossed, and surrounding them in this position, just above the ankles, so tightly, that fully two-thirds of their whole thickness were thereby divided, without, however, any breach of the skin having taken place, nor was there the slightest appearance of disorganization or discoloration of any of the parts, but as were the hands, the feet also were imperfectly formed, totally undeveloped, and of course misshapen. The fœtus is preserved among the preparations in my museum. The mother was about twenty-five years of age, and at the time labouring under fever, but had been previously in perfectly good health, and had not met with any accident, bodily injury, or mental agitation."

From the condition of the limbs thus produced, and the impossibility of the parts below the ligatures continuing their growth under such circumstances, the author states, that it seems exceedingly probable that had the child continued to live and grow, the parts of the legs below the ligatures would have been separated, and thus have undergone spontaneous amputation. Concerning the formation of these curious threads, and the mode in which they became thus applied to the limbs, Dr. Montgomery prudently enters on no speculation.

EFFECTS OF CERTAIN REMEDIES.

The 4th article is entitled "Observations on the Treatment of various Diseases, by Dr. Graves." The author first details a remarkable case of spontaneous ptyalism of a whitish viscid mucus, secreted by the mucous membrane of the fauces and back of the pharynx, but in the production of which the salivary glands were not at all concerned. The patient suffered severely, and was reduced to a state closely resembling theeffects of prolonged diabetes. After resisting various remedies, Dr. Graves ordered one grain of opium every fourth hour, and that night the ptyalism completely ceased. Having recurred again in a few days, the opium was again resumed, and with the same excellent effect. Though a rare affection, this is perhaps one of the most distressing torments to a patient that can readily be imagined. We remember seeing a midle-aged female some years since, labouring under it to a severe degree, and cured by chewing the root of the anthemis pyrethrum.

Dr. Graves appends to the description of this case a few very valuable remarks on some of the secondary effects of mercury. A lady, a patient of his, who many years since took a large quantity of mercury, has ever since been subject to occasional returns of salivation, in every respect resembling those brought on by that mineral. During these fits, which are always brought on by exposure to cold, the mouth is sore, the gums red and swollen, the salivation copious, and the breath strongly impregnated with the mercurial fœtor. This case is deeply important in many points of view, and especially with reference to the medico-legal investigation of cases of suspected mercurial poisoning.

Cold affusion in convulsions, next engages the author's attention; he adduces a striking case in proof of its efficacy, and offers many judicious remarks on the precautions to be observed in its employment.

"A most instructive monograph might be written on the application of cold to the head in various diseases; at present, much mischief frequently arises from practitioners being unacquainted with the different degrees of cold suitable to different states of the cerebral organ, and the different methods of conducting its application, so as to produce relief. In one case of fever, I saw violent mania immediately follow the injudicious application of ice to the head; and in another, much difficulty was experienced in saving the life of a young person, in whom a collapse of the system, without

relief of the local affection, had been induced by the too copious and continued application of cold water to the head. Where very violent pain in the head occurs in fever, the *cold dashing* with water from a height, as recommended by Dr. Smith in his excellent treatise, is often a most valuable remedy, but in convulsive diseases like that now described, this application is too violent; in such cases, the stream of water should be small, not poured from a height, and should be discontinued the moment the fit ceases, to be again renewed on the approach of another paroxysm. I am informed by an eminent practitioner of this city, that he twice witnessed fatal convulsions follow the injudicious use of cold affusion in mania. The efficacy of cold affusion in delirium tremens, in asphyxia, in cases of over doses of prussic acid, &c., prove that it is too powerful an agent to be indiscriminately applied."

A case of hydrophobia, and another of tetanus, follow. In the first, strychnine was freely but ineffectually given. In the second, tobacco was diligently used, but with equal inutility. A curious instance of neuralgia of the mammæ is next related, in which, after stupes, narcotic liniments and plasters, salt-water baths and leeches, had been tried in vain, great relief was afforded by half-drachm doses of the carbonate of iron. The author adds to this case some excellent remarks on the mode of administering tonic medicines. We extract these observations, as they are replete with practical value.

"In fact we may consider it as a general rule, that tonics are rarely indicated, where moderate doses do not effect the desired purpose. This applies more particularly to the stronger tonics, such as the salts of iron, of arsenic, and quinine. I can scarcely conceive a case possible, in which a judicious physician will find it necessary—for instance, to give more than ten grains of sulphate of quinine in a day, and yet much larger doses are not unusual here and elsewhere. Whenever the symptoms supposed to call for such a treatment resist moderate doses of sulphate of quinine, we ought to pause, and reflect whether another plan of treatment ought to be adopted. There are two states of the system attended frequently with well-marked rigors, febrile paroxysms, and intermissions closely resembling ague; I mean internal suppuration, and local inflammation without suppuration. Practical physicians are fully aware of this circumstance, *but there is another condition of the system in which symptoms simulating ague arise, totally unconnected with inflammation*, and of which I have seen two remarkable examples. They both occurred in females. One, a lady of a nervous temperament, in about a fortnight after her confinement, was affected with well-marked symptoms of quotidian ague, which grew worse and more violent during the exhibition of very large doses of sulphate of quinine, but she rapidly got rid of her complaint, when, at my suggestion, camphor, aromatic spirit of ammonia, &c., were substituted in its place. In another lady, symptoms of tertian, and afterwards of double tertian, had continued for many weeks, and had reduced the patient extremely, sulphate of quinine, arsenic, and opium, had successively received a fair trial, but in vain. This disease, however, finally yielded to the exhibition of diffusible stimulants, used in combination with *antacids*.

"I cannot point out how such cases are to be distinguished from ague, except it be by the failure of the sulphate of quinine. From local inflammations and suppuration they may in general be distinguished with facility. I may here observe that, in a gentleman treated by Dr. Marsh and myself, violent symptoms of ague depended in the presence of a number of *very small* abscesses in the liver. Here sulphate of quinine given in *lavements* caused a cessation of the rigors, but *did not diminish the other symptoms of fever*; on the contrary, had it been persevered in, the intermittent would have been evidently converted into a continued fever.

"The influence of sulphate of quinine *in* preventing rigors, even where it cannot remove the cause of constitutional irritation, is well illustrated by its effects where the symptoms depend on stricture of the urethra; and ought to be recollected by every practitioner, lest he be misled occasionally by this partial improvement into an injudicious continuance of the medicine. To conclude my remarks on this powerful remedy, physicians generally prescribe it in too large quantities, also in chronic diseases. Where it is intended to act as a *tonic*, I am persuaded that the dose should never exceed half a grain three times a day, and generally even smaller quantities are sufficient; when a combination of tonic and purgative medicines is required, all our intentions may be answered by a combination of sulphate of quinine in proper quantity, with the compound extract of colocynth, or the pilul. aloes cum myrrhâ."

Our analysis has already extended to such a length, that we are compelled to postpone the examination of some other very interesting papers until our next Number.

THE LANCET.

London, Saturday, May 12th, 1832.

A CORRESPONDENT, in allusion to the proceedings at the last meeting of the Westminster Medical Society, and our remarks on the observations of one of the speakers, adverts with surprise to the fact that Dr. JAMES JOHNSON united himself with those who affected to believe that we had changed our opinions on the question of contagion in cholera. Our correspondent thinks that long habits of examining and analyzing literary and medical questions "should have preserved *him*, at any rate, from the misrepresentations of which he was guilty on that occasion."

As we usually contrive to convey our opinions on the various subjects we discuss in tolerably clear terms, and as obscurity of expression has never been one of the faults of *our* mode of writing, we are forced to conclude that Dr. JOHNSON must have perused our recent observations too hastily, when he charged us with having abandoned the doctrines of contagion in the very same article in which we dwelt on the strongest proof ever offered of the existence of that agent in the communication of disease. We allude to Mr. Prebble's cases, which we shall over and over again cite as deserving to be considered as the most powerful evidence that was ever offered to the profession on this important subject. No stronger proof was ever afforded of the contagion of measles, scarlatina, typhus, or plague, than these cases present of the contagion of cholera.

In order, however, to prevent any future misconception or misstatement of our views in this matter, we once more reiterate the creed which we have ever upheld from the first moment of its discussion.

We believe and affirm, from irrefragable proof, that the cholera *can* be communicated from man to man, but, at the same time, consider, that the facility or difficulty of receiving the disease, is regulated by external causes, of the nature of which we have no knowledge.

From the consideration of the geographical history of the disease from the time it entered the duchy of Posen to its appearance in England, we believe that it was extended principally by human intercourse.

We admit the *possibility* of the operation of another cause besides contagion. But of the nature of that cause we do not pretend to possess any knowledge, and regard its admission as resting principally on negative evidence of three kinds:—First, the occurrence of cases in places the inhabitants of which have not had any *known* communication with sources of contagion; Secondly, the immunity of numerous persons who have been exposed to actually infected individuals; and, Thirdly, the recent geographical history of the malady.

Now, of the uncertain character of the first kind of these proofs an instructive example has recently been published by Mr. TWEEDIE. We extract the passage *verbatim*:—

"*Case* 1.—Mrs. Fitzgerald, living in 3, Birdcage-alley, High-street, Borough, was seized with cholera on the afternoon of Sunday, February 19th, and died in the course of the ensuing night. She was taken ill whilst she was out on her way to attend the funeral of one Sullivan, who had died at the back of Tooley-street a few days before, and whom she had visited during his illness.

"*Case* 2.—Mrs. Doyle, who nursed Mrs. Fitzgerald, and was a robust fearless woman, sickened over the body of the latter, became worse, and died on the Thursday following, February 24th, in the same house. These two cases were attended by Dr. Whiting.

"The day after Mrs. Doyle's death a family living in that house, taking alarm at the event of these two deaths, removed themselves and their goods to the house of a man named Daniel Corcoran, 9, Royal

Tent-court, Kent-street, in Newington parish.

"*Case* 3.—Corcoran was taken ill on Sunday afternoon following with the most aggravated symptoms of cholera, and died that night, towards the morning. In addition to this, the widow of a man who had died elsewhere of cholera on the preceding Tuesday, had since then taken refuge at Corcoran's. This was the first case in Royal Tent-court.

"*Case* 4.—On Saturday, 3d March, Owen Maly was admitted into Guy's Hospital for an illness which, after admission, was pronounced to be cholera. He was thereupon removed to the cholera ward, where he died on the night of the 4th. This man, *after close inquiry*, was found to have resided in Royal Tent-court, Kent-street, and to have been acquainted with and visited Corcoran (Case 3). He had a few days' premonitory diarrhœa.

"In illustration of the impediment that so frequently exists to the complete elucidation of the circumstances of a case, I would refer to the official report of Dr. O'Shaughnessy, the highly-talented and industrious inspector of the Camberwell and Newington districts. In No. 4 of the *Cholera Gazette*, p. 137, there is the brief notice of one Daniel Coghlan, living in 9, Royal Tent-court, Kent-street, who was seized with cholera on the 26th February, and died that night; the case having been seen by Mr. Callaway and several other medical gentlemen. The report concludes in these words:—"No communication could be traced with persons or things calculated to propagate this disease." At the time that we were in attendance upon the case, as well as on the following morning, we remained satisfied that such indeed was the fact, and that here was a case in which "the evidence of contagion was entirely wanting." But on the following day, being at Guy's Hospital, I recognised amongst the workmen there an individual who had been present in Coghlan or Corcoran's room during his illness, a relative of his, who knew him well. From this man, with some difficulty, I learnt the foregoing truths, which were afterwards literally verified by the inquiries of my friend Mr. Charles Gaselee, made in a totally different quarter."

After this, what right have we to say that no communication with infected persons or things has existed in the cases in which *we* could not trace it? What, too, becomes of this species of argument in favour of epidemic influence, if it be sifted as rigorously as common induction demands?

As to the proof afforded by the immunity enjoyed by the numerous exposed persons, we confess that there is no kind of reasoning more open to fallacy. We have over and over again recorded the occurrence of similar events in typhus, small-pox, measles, and plague.

In short, of all the reasons supposed to indicate the prevalence of epidemic influence, the only one which weighs with us, is, the history of the geographical statistics of the disease, for the past two months. This as strongly points to some other agency besides that of contagion, as the previous continuous route and moderate mortality of the disease pointed to contagion alone.

In conclusion, we have only to remark, that with respect to the hint given in the last of our numbers but one, as to the prevalence of the unknown cause of epidemic diseases, being, to a certain extent, a local protection against contagion, it was merely thrown out as a topic for discussion. It was not advanced as an adopted opinion; it may be accepted or rejected. There are powerful facts to uphold it in the history of cholera, and all the confessedly contagious maladies. There are other facts equally opposing the admission. At any rate, the subject deserves consideration.

UNIVERSITY OF LONDON.

To the Editor of THE LANCET.

SIR,—Knowing the interest you have always taken in the prosperity of the University of London, I feel assured that you will insert in the next number of THE LANCET the enclosed copy of the questions proposed by our highly and justly-esteemed Professor, Dr. Elliotson, to those gentlemen

who have contended for honours in his class. Their great merit will I am sure alone be sufficient apology for my obtruding them on your notice.

A brief account of the manner of conducting the examination may not be unacceptable to your readers, the same plan being adopted in all the classes. It took place on the 5th of May. At 12 o'clock a number of copies of the questions were brought into the theatre in a sealed packet, and the students were requested to seat themselves at such distances from each other as to preclude any communication, when a copy of the questions was delivered to each, and six hours allowed for the completion of the answers; but in this instance, another hour was given at the unanimous request of the students. At the expiration of that time the answers were all placed in a box appropriated for that purpose, each being signed with a motto adopted by the pupil, so that a Professor has no means of knowing the name of the persons to whom he has awarded honours until the day of their distribution, when they are publicly declared. This will take place on the 16th of May. The students have been highly gratified to learn that their Professors have fixed on a plan for a hospital (being one of four submitted to them), which they have agreed to recommend to the Council, and which is intended to hold between three and four hundred patients, a part of which, at any rate, will be completed by the commencement of our next session.

It is reported that the Professors at the same meeting were pleased to say, that they thought it their duty to state to the Council the high sense they entertain of the great attention, orderly and gentlemanly conduct, evinced by the whole body of the students during the past session, and from which they have derived great satisfaction.

By inserting the inclosed question, together with the above, you will much oblige a

STUDENT OF THE UNIVERSITY.

London University, May 7, 1832.

QUESTIONS *proposed to the Class attending* Dr. ELLIOTSON'S *Lectures on the Principles and Practice of Medicine.*

1. What are the series of symptoms and anatomical changes in the progress and decline of inflammation of the lungs—in peripneumonia?

2. What are the series of symptoms and anatomical changes in phthisis properly so called—in tubercular phthisis?

3. What are the circumstances which favour or oppose the production of malaria, which favour or oppose its presence in any place after its production, and which favour or oppose its operation in any particular person?

4. What are the contagious diseases of the human body, and in what points do contagions differ?

5. What diseases in this country attack chiefly children, what youth, what adults, and what those in the decline of life?

6. What are the principal ectozoa and entozoa of the human race, and what are their ordinary seats respectively?

7. In what canals and receptacles are concretions usually found, and what is the nature of these concretions?

8. What is the diagnosis of phrenitis and delirium tremens, the causes, anatomical appearances, and treatment, of each?

9. What are the varieties of paralysis as to situation, symptoms, anatomical appearances, and mode of treatment required?

10. What are the causes, symptoms, and diagnosis, of tetanus and hydrophobia?

11. What is the diagnosis between cholera, dysentery, enteritis, colic, and diarrhœa?

12. What are the symptoms of scurvy, its causes, and treatment?

13. What are the varieties in the symptoms, and what the anatomical appearances of epilepsy?

14. What is the diagnosis between solidification of the lungs, hydro-thorax, pneumato-thorax, and hydro-pneumato-thorax?

15. What is the series of symptoms in small-pox, modified small-pox, and chicken-pox, and what the anatomical appearances after death from the first?

VALERIAN.

To the Editor of THE LANCET.

SIR,—As the time for collecting the roots of *valerian* for medicinal use has *now* arrived, the following lecture will I trust be kindly inserted, as containing information of importance in regard to this article of the materia medica. Yours truly,

JOHN EPPS.

11, Berners Street, May 7.

Virtues of Valerian.—Different Varieties of this Root sold in the Shops.—Heath Valerian the truly Medicinal.—Differences of Opinion regarding the Virtues of this Plant explained.

"SCIRE vere est scire per causas" is a dogma, Gentlemen, to which we cannot pay too much attention. The truth embodied in this, is one in which the scientific mind delights, because the knowledge thus founded has an accuracy and a certainty

which no empirical knowledge can ever possess. The state of mind, connected with a knowledge of causes, throws a light where formerly darkness prevailed, and imparts for vacillation a fixedness of purpose. To illustrate these remarks, we may refer to *valerian*. This article has had its day of glory, and its day of dishonour. Its virtues have been exalted by many of the fathers of the medical art; the moderns, for the most part, despise it. How can this diversity of opinion be explained? Only by putting in force, in an examination of the plant, the adage—"Scire vere est scire per causas."

Well, Gentlemen, let us proceed to this examination, before which, however, it may be useful to recal your attention to an article called *extractum taraxaci*. You will remember that, in treating on this, similar differences of opinion in regard to its virtues existed; and you will also remember that Mr. Houlton has solved the problem, by proving that the extract of dandelion, as prepared by the *common* process, is inert, whereas, as prepared by the process he recommends (and dandelion extract as prepared by this process may be had at Smith's, 10, Nutford Place, and Rose's, 211, Tottenham Court Road), it possesses all the virtues which were ascribed to it. Now these circumstances, in regard to dandelion, have always acted upon my mind as an impulse to inquiry, whenever I found a great contrariety of opinion regarding the virtues of any particular medicine. Thus influenced, then, I began to investigate the subject of the virtues of valerian. I found, Gentlemen, but little help from pharmacologias, or works on materia medica; works generally mere compilations. Nature therefore must be examined. I pursued the way in which she led, and found my goal. Previously to mentioning this to you, it may be advisable to enumerate some of the testimonies in *favour* of and *against* valerian.

Valerian is spoken of by Dioscorides, who derives it, a Greek name, from φυ (phu), on account of its smell. This writer, as well as Galen, mentions it as an *aromatic*; and this, Gentlemen, I beg you particularly to bear in mind. Dominicus Panorolus published some cases exhibiting its use in *epilepsy*. Haller recommends it in hysterical affections, and considers it as useful in epilepsy. Fordyce, in his Treatise on Hemicrania, p. 91, praises it highly. Whytt on Nervous Diseases, p. 513, states that he used it with success in epilepsy. He combined it with manna. Columna reports that he was cured of epilepsy by this remedy, after other remedies had failed. M. Marchant, in the Memoirs of the Academy of Sciences, relates two cases of epilepsy where it was useful. The patients voided great quantities of worms. He always purged before using it. Dr. Withering recommends it as a laxative, and states that it acts when other means more violent have failed. *Catalepsy* was cured with it by Mr. Mudge; he gave ʒss doses of the powder. Fordyce recommends it in *dulness of vision*. Dr. Home, of Edinburgh, who, though not esteemed an authority in matters relating to the practice of physic, is a very good authority in reference to materia medica, states that he has found benefits from the use of this medicine in nervous affections. I myself have seen many benefits from its use, and I have been much disappointed. Most of the moderns condemn it. Dr. Woodville asserts that he has seldom found it answer the expectation of the prescriber.

Such, Gentlemen, is the contrariety of opinion; the solution will interest you.

Three modes of solving the problem occurred.

The *first* was—*May not the valerian root be gathered at the wrong season, when its virtues are nearly gone*? This, though affording in part the explanation, did not satisfy me, because I found that sometimes from the *yearly* supply from the *same* herbalist the utmost benefits, and sometimes no benefits at all, arose.

The *second* was—*May not the medicine have been given in too small doses?* This seemed to be a fair presumption, but, upon examination, the same irregularity in effect occurred during the use of large doses as of small.

The *third* mode, which I found to be the true one, was—*May not other roots, varieties of valerian, be mixed with the true root?* I entered upon the investigation of this, and while thus engaged, happened to fall in at a book-stall with a pamphlet written by John Hill, M.D., on this plant, establishing my views on this plant. This was published in 1758.

The species of valerian referred to in the Pharmacopœia, as producing the valerian root, is the *valeriana officinalis*. This is thus described by Sir Edward Smith—"floribus triandris, foliis omnibus pinatis foliolis lancialatis subuniformibus." This description is not sufficient to characterise the true valerian. A plant may have all these characters, without possessing the virtues of valerian. The real plant was called *valeriana sylvestris major* by the older botanists.

There are three varieties of this species of valerian—*the heath, the wood*, and *the water valerian*.

The heath valerian is the one possessing the medicinal virtues in the highest degree.

The wood valerian is considerably inferior, and the water valerian is still more so. Unfortunately the last is most easily obtained and most abundant, and hence there are 50 roots of this, to one of the heath. Hence originates the uncertainty of effect.

Let us now, Gentlemen, point out the distinctions between these varieties. These distinctions refer to the plants themselves, and to the roots. And first in regard to the *plants*.

Character of Heath Valerian.	*Character of Water Valerian.*
Height.—Two feet and two feet and a half.	Four feet in height.
Stalk.—Dusky green. Lightly hairy.	*Stalk.*—Pale green. Not so; thick.
Leaves.—Smaller than the water.	Larger—*fresh pale* green, and *smooth*.
Foliola.—The little leaves, composing each of the larger leaves, of a *deeper* colour, *narrower*, and covered with *white hairs*.	
Flowers.—Brighter red.	*Flowers.*—Pale red.
Clusters.—Smaller than in the water.	
Seed.—Small.	*Seed.*—Large and soft.

The wood valerian has characters intermediate.

The distinctions in regard to the *root* may be arranged thus:—

Heath Valerian.	*Wood Valerian.*	*Water Valerian.*
Colour.—Brown, nearly olive	Tawny or deep brown ..	Pale colour, nearly yellow.
Radicles.—Long, slender, with numerous hairy threads	.....	Thicker fibres—more naked.
Roots.—Firm, tough	.....	Tender, easily broken.
Smell.—Fresh, aromatic	.....	No freshness, little aroma.
Slightly fetid	.....	Heavy fetid smell. Cats busy themselves about this more than about the other roots.

The characters refer more exclusively to the *recent* roots. The *dry* roots may be distinguished also by the colour, as above described, the hairy threads, and the toughness. The heath valerian root, when dry, has no *cavity* in the *centre*, as the water valerian has. In the former, a circle of a greenish or pale hue, *surrounding the pith*, is observed: in the water, this circle is often black. The taste of the heath is spicy and pleasant, and after a little chewing, bitter and astringent, which is not the case with the water. If the root be dirty and dry, macerating the same in water will soon bring out the colour.

I hope, Gentlemen, that this statement will put you on your guard in purchasing the roots; but with the view of still more deeply impressing on your mind the necessity of caution, it may be as well to mention who are the collectors, and some circumstances connected with the collection of the roots, which tend to the introduction of the water instead of the heath valerian.

The collectors are generally very unfit for the employment; they are very imperfectly acquainted with botany, possessing but a very general knowledge of the external characters of the plant. Their object is *quantity* not *quality*. They take the roots which are most easily obtained, and most easily drawn up. Now the water valerian growing in clusters and in moist soil, is both most easily and abundantly obtained, and most easily drawn up. The heath valerian is more scattered in its growth; and growing in a closer soil, the roots are more difficultly obtained. The collectors often draw up other roots. Dr. Hill states, that he raised a plant of the *smooth water crowfoot* (poisonous) from a root sold as valerian.

Another circumstance regulating the collection is, that the gatherers pull up the plant when it has shot up the stalk, which enables them to draw it up more easily. Now the plant should be gathered *soon after the stalk has begun to appear above the earth*. After the stalk has fully risen, the plant has lost much of its virtues.

Another circumstance is, that many of the collectors know the plant only by its *flowers*. Hence they gather the roots when the plants are in a state of flowering, a period when *the juices of the plant are exhausted*. For, Gentlemen, I think you must be aware, from your attendance on botany at this theatre, that as the *generation of a new individual* is the grand end of the changes which the plant goes through in passing to the state of flowering, and as all the energies of the plant are directed to effect this end, when the end is obtained,

the roots can be of little or no use. And, to establish this more fully, let me remind you of the fact, that an *annual* may, by its flowering being prevented, be made to exist for *another year*; in other words, a plant, which exhausting itself by flowering would die, is perpetuated by this exhaustion being prevented. Need I add any more to show the utter uselessness of the roots of valerian obtained from plants that have *flowered*?

Such, Gentlemen, being the difficulties connected with obtaining true valerian root, it seems not at all astonishing that such differences of opinion should exist in regard to the medicinal powers of this article of the materia medica.

The virtues of this medicine we shall enter upon on another occasion.—*Part of a Lecture at the Westminster Dispensary, Gerrard-street.*

CASE OF

SPINAL IRRITATION.

To the Editor of THE LANCET.

SIR,—In some of the last Numbers of your valuable periodical, I have read several cases of affection of the spine, &c., which have brought to my recollection a case that came under my observation some time since, after reading an interesting clinical lecture on spinal irritation, by Dr. Corrigan, of the Jervis Street Hospital, Dublin. Should you deem it of sufficient interest, you will be good enough to insert it in your pages. I am, Sir, yours, &c.,

L. O. FOX.

Richard Hendley, a labourer, ætat. 36, was attacked on July 6, 1831, with inability to use the right arm and leg whilst walking to his work. Had felt a sensation of numbness in the affected limbs for two days previously. Complained of pain in the back. The arm and leg were painful, excepting when he lay down in bed, when he felt perfectly easy. Had, during the day, palpitation, darting pains about the chest, particularly on the right side. Pressure over the superior dorsal vertebræ brought them on immediately, and occasioned also severe pain in the right arm. Pulse 80; tongue slightly furred; bowels confined; slight headach.

℞ *Mitt. sanguin. a verteb. dors. ad* ℥xij;
℞ *Hydrarg. submur.*, grs. x, *statim sumend.*
℞ *Ol. ricini*, ℥vj, *post horas duas sumend.*

July 7. Felt better to-day; had less palpitation; pressure over the dorsal vertebræ occasioned less pain in the arm. Bowels slightly acted upon.

Applicentur hirudines xx *verteb. dors.*
Repetatur medicinam.

9. Leeches bled so profusely as to occasion syncope. Expressed himself greatly relieved; scarcely any pain from pressure on the spine, excepting tenderness from the leech-bites; bowels freely opened; pulse 76, and soft.

I need not trouble you with any further account of the case, otherwise than that the man rapidly recovered, and at the week's end was enabled to follow his usual employment.

Remarks.—There is a striking analogy between the foregoing case and some of those related by Dr. Corrigan in THE LANCET of May 7, 1831, to which the name of spinal irritation has been applied.

I was induced to follow the simple method of treatment recommended in the lecture referred to, which succeeded most satisfactorily.

Broughton, Stockbridge, Hants,
May 4, 1832.

ROYAL COLLEGE OF PHYSICIANS.

Monday, April 30, 1832.

Sir H. HALFORD in the Chair.

PAPER ON CHOLERA.

A LARGE assembly of Doctors, clerical, legal, and medical, took place in the library of this College. Amongst the most prominent were the celebrated linguist Dr. Ireland, Dean of Westminster, Baron Vaughan, the Dean of Chichester, and Sir Charles Mansfield Clarke, Bart. and M.D. *jure divino*. A paper on the threadbare subject of cholera was presented from Dr. Heberden, and read with feminine grace by the President's nephew, Dr. Hawkins. Dr. Heberden took a historical view of the various contagious maladies that have prevailed at different epochs, and compared them with recent epidemics, and with the rise and progress of the cholera, "in its regular movement from the rising to the setting sun, and from the torrid zone to the arctic circle." From all his researches, the writer came to the conclusion, that two conditions were necessary to the communication of the disease,—a predisposing state of the body, and the presence of the morbid principle. The rule according to which these circumstances acted, might mathematically be described as follows:—the relative power of the two causes did not matter, provided the resulting influence attained a certain amount. It signified not what relation A, the predisposing cause, might bear to B, the morbific matter, if C,

the combined exciting cause, was of a given value. The author surveyed the whole field of controversy, and analysed with considerable ability the arguments employed, both by the contagionists and the anti-contagionists. He related numerous cases which seemed conclusive on both sides, and summed up by a statement of the above-quoted creed. In contradiction to the assertion that the cholera was not considered contagious in India, he alluded to the opinion of the late Sir Thomas Monro, a distinguished officer, and one of course quite free from any party bias on the subject. Sir Thomas died of cholera, and always conjured his friends not to stay in his room, lest they should become affected. In illustration of the influence of the morbific principle on constitutions so disposed to disease, he narrated the history of his own child, who caught the measles from his brothers and sisters. The disease set in with an affection resembling croup. He consulted his apothecary, whose experience was more extensive than his own on the subject, but that gentleman had never known an instance of croup thus preceding the measles. Dr. Heberden was impressed with a sense of the immediate danger of his child, and sat on the bed all night ready to administer to its wants. The antiphlogistic treatment was adopted, and by the morning the little patient was much better, but the measles continued their course. The Doctor himself was now conscious of a sense of constriction almost amounting to suffocation in the throat, and especially in the larynx. This was intermittent, and returned more severely every quarter of an hour. In the course of a few hours, however, it went off entirely, but left considerable debility of the whole system. This the doctor considered a good illustration of the resistance offered by an unwilling constitution to the reception of the virus. The paper was interspersed with pious ejaculations, and concluded with a suitable peroration.

DISSERTATION ON PHLEGMASIA DOLENS IN MALES.—CASE OF THE EARL OF LIVERPOOL.

At the conclusion of Dr. Heberden's paper, the President begged leave to read a few remarks he had drawn up on the subject of phlegmasia dolens. Until lately, this disease had been supposed to affect women exclusively, and had accordingly been named "Depôt du Lait," but the more correct pathology now advocated, coincided with the true history of the disease. It was true that females suffered it after parturition, from the pressure of the gravid uterus on the iliac veins, and the violent changes incident to that state. The disease, however, is occasionally met with in men. The late Earl of Liverpool was affected with it many years; he was attended by the late Dr. Pemberton and Sir Astley Cooper, and was treated with leeches, and the usual antiphlogistic means. After Dr. Pemberton's death, Sir Henry Halford was consulted. He found the disease affecting the left groin and thigh, and extending into the leg. Upon examining his Lordship, Sir Henry found nothing remarkable, except a remarkably slow pulse, making about forty-four beats in a minute. This struck his attention, for he was informed the usual habit of the pulse was seventy-four beats in a minute. On communicating the fact to Sir Astley Cooper, that eminent surgeon ingeniously conjectured that this anomaly was due to the obliteration of the left iliac vein, a circumstance which would occasion a retardation of the blood from the inferior members to the heart, and thus occasion a delay in the systole of that organ. His Lordship subsequently found the sight of the left eye affected, and soon after had an attack of apoplexy. This was followed by a series of epileptic fits, one of which proved fatal. The post-mortem examination afforded a curious confirmation of Sir Astley Cooper's conjecture, for the left iliac vein was found completely impervious (as was shown by a drawing). On examining the brain, a large cavity filled with serum was found over the right ventricle, and extending upwards as far as the pia mater, vaulting that part of the hemisphere. This case Sir Henry thought particularly instructive, and suggested to him the idea, that phlegmasia dolens was not an unfrequent cause of paralytic and apoplectic disorders; for, consistently with the ingenious hypothesis of Sir A. Cooper, the obliteration of the iliac veins clogs the action of the heart, and destroys the balance of celerity between the upward current from the inferior parts, and the downward current of blood from the head. An unwonted accumulation of blood in the veins and sinuses is the consequence, and, increasing with the increase of the cause, gradually leads on to an apoplectic paroxysm. Sir Henry then related two other cases of phlegmasia dolens in men. They were very similar to the case of the Earl of Liverpool, and were succeeded by a marked tendency to head affections. The patients were still living, and under the care of Sir Henry, who stated he should regard with suspicion any tendency to cerebral derangement. Sir Henry concluded by stating, that the object of his short paper was to contribute a few facts in support of the new views entertained of the pathology of phlegmasia dolens, and towards the establishment of the coincidence

of obliterated iliac veins, and cerebral nervous affections, as a principle of pathology.

On the table were displayed the splendid plates of Alibert, numerous publications, chiefly German, and a curious anatomical work, published at Ulm in the year 1639. This was entitled "Catoptrum Microcosmicum," the author, Johannes Rammelini; the plates were arranged so as that the different parts were shown in layers, a plan which has been claimed as original by Mr. Tuson.

ROYAL INSTITUTION.

April 13th, 1832.

EXPERIMENTS RELATING TO THE LAWS WHICH REGULATE ANIMAL LIFE.

Relation between Irritability and Respiration.

Dr. Hall has pursued in this province of physiology, the experiments instituted originally by Dr. W. F. Edwards, to determine the laws which regulate the influence of physical agents upon the vital principle. Dr. Edwards made an elaborate series of experiments to ascertain these laws. The physical agents referred to, comprehend atmospheric air, water, and temperature; the two first constituting the media in which all animals exist, and the last affecting in common the inhabitants of both media. The agency of the air around us, water, and heat and cold, have often been the objects of *chemical* inquiry, from their known great influence upon the animal economy. The changes effected by the phenomena of animal life upon these agents have been accurately examined, and partly reduced to a mathematical precision of calculation.

Spallanzani and others have viewed the subject as it regards physiology, but with such results as left the field open to subsequent investigation. Dr. Edwards seems to have seized upon the deficiencies of his predecessors, and by going over their ground and extending his own inquiries, he has arrived at most interesting and important results. These he has divided into four parts, as they relate to the different orders of the animal creation. The first includes some of the lower animals particularly tenacious of life, and of cold blood, such as frogs, toads, and salamanders. The second part is devoted to other animals of cold blood, and of the vertebrated order, as fish, and those reptiles which include lizards, snakes, and turtles. The third part refers to the warm-blooded animals. The last division of the work is dedicated to the influence of the physical agents alluded to, upon the human race, and upon vertebrated animals. Dr. Edwards proceeds to examine the action of physical agents upon the simplest forms of organised beings, extending his inquiries upwards in the scale of the animal world.

The air exercises its influence uniformly upon the four classes of vertebrated animals, and their different families are similarly exposed to the action of the atmosphere by respiration. Dr. Priestley laid the foundation of our chemical knowledge of gases in their relation to respiration. Oxygen gas was shown by that philosopher to change the colour of blood from dark purple to bright crimson. Lavoisier founded a chemical theory upon this discovery of the agency of the air, which was afterwards applied by Goodwin to physiology. The latter author demonstrated, that the exclusion of atmospheric air produces death in animals, by preventing the dark-coloured blood usually circulating in the veins from becoming crimson. The state in which any animal may be thus placed, is known by the term asphyxia, by which is meant, a deficient aërification of the blood, from whatever cause.

Bichat, after several experiments, arrived at the important conclusion, that *the venous blood circulating through the brain, causes a cessation of the functions of that organ, and that, in consequence, the heart loses its action.*

Le Gallois further found, that *when dark-coloured blood circulated through the spinal marrow, the motions of the heart ceased*, and thus determined not only the relations of the nervous system to atmospheric air, but also those of the respiration and the circulation.

Impressed with a conviction that the phenomena of cold-blooded animals were too extraordinary to be noticed cursorily, and required extensive observation, Dr. Edwards proceeded to form an estimate of the comparative influence of the air and water upon the nervous and muscular systems of cold-blooded animals, which the singular modifications of life among reptiles in particular, afford ample means of ascertaining.

After removing the heart and bulb of the aorta from a certain number of salamanders, and immersing them in some common aërated water, and some in water deprived of the air by boiling, he came to the conclusion, *that the air is the most proper medium for the action of their nervous and muscular systems in their insulated state, the respiration and circulation of the blood being both suspended.* Dr. Edwards also confirmed the observation of Goodwin as to the effect produced on the colour of the blood.

The next point to determine was, the influence of the air upon the same animals exercising the respiratory function, and retaining their circulation, compared with

those deprived of these functions. Having placed a number of frogs circumstanced as in the first experiment, and an equal number left entire, in dis-aërated water, it was found the entire animals lived longest; and it is deduced from this, that although dis-aërated blood furnishes but an ephemeral sort of existence, it exercises nevertheless a comparatively favourable influence upon the nervous and muscular systems, since it tends to the prolongation of these functions.

Dr. Edwards also investigated the phenomena of *asphyxy* produced by *strangulation* in the same animals. As a comparative illustration, an equal number of frogs were submersed in water, all of which died in about *ten or eleven hours*, while those which were strangled lived from *one* to *five days*.

In comparing the effects of strangulation by drowning, it was to be supposed either that these animals exist a limited period without the necessity of the nervous system being in contact with the atmospheric air, or that the air influences their blood through the integuments of the body. This led to experiments on *cutaneous transpiration*, and after a suite of interesting experiments, this extraordinary fact was established, that toads can live far longer in a state of asphyxy, confined in solid substances, than when submersed in water, a fact remarkable, inasmuch as it affords an exception to the general rule as regards reptiles, that all animals require a *constant* supply of fresh air for the maintenance of their existence.

Dr. Edwards found, that although a certain quantity of air enters the boxes in which the animals were placed, yet it is far too little to maintain life. His conclusion, therefore, is correct, that these animals can live longer in *solid substances* than in a limited quantity of *dry air*. It is supposed that a rapid and abundant transpiration from the body, united with deficiency of air, seems to be a greater cause of dissolution, than confinement in solid substances, wherein there is no waste by transpiration.

These experiments, on being repeated with reference to the influence of temperature, proved that the animals submersed in aërated water lived longest, the lower the temperature of the surrounding medium was. It was found, too, that the seasons exerted a peculiar influence on the constitution of these animals, and that the autumn was more favourable to the duration of life than summer, and winter more than autumn. Dr. Edwards found that frogs did not remain submersed in stagnant water more than two days and a half. Frogs are less active during winter than at other seasons, but they never lose their motion. By a final series of experiments, Dr. Edwards ascertained that frogs pass the winter in an animated state in water, not becoming stiffened as in ice, and that they need not approach the surface of the water in order to respire, provided the water they inhabit be renewed at intervals; but if the water be not renewed, the frogs perish. Thus showing, that these animals are able to respire the air contained in the dense medium of water for an indefinite period, and just as easy as the finer medium on land.

Respecting the action of aërated water on the skin, the conclusion drawn is, that the continuance of life, in the experiments made upon this point, was due to cutaneous absorption, since the animals were in a state of *asphyxy* as regards the lungs, for no water was ever seen in the lungs. It was shown also, that *running* water was most favourable to these amphibious creatures, even at a higher temperature than ordinary, and this was due apparently to its constant and unceasing renewal.

The general result of the experimental investigation appears to be this,—that these animals when submersed in water, are influenced by three circumstances:—1. The presence of *air* in water; 2. The *quantity* of its renewal; 3. The *temperature* of the medium.

Dr. Marshall Hall repeated with great industry and ingenuity the experiments of Dr. Edwards, and in some respects refined upon them. These shall be more particularly alluded to in a subsequent number. He ultimately arrived at this important corollary, that the *irritability* of animals, of whatever class, is in the inverse ratio of the perfection of the respiratory function.

ELASTICITY AND BEARING PROPERTIES OF CAST IRON.

May 4th.

Mr. Cottam delivered a very interesting and animated lecture on the above subject. He said that many engineers were guided in their investigations into the tenacity of this pre-eminently useful metal, by taking as a datum its breaking point, when submitted in various forms to the influence of weight or pressure. Having ascertained this, the class of inquirers alluded to considered one-sixth of the force necessary to destroy its tenacity, as the proper weight to be habitually imposed upon it. Mr. Cottam showed clearly, however, that the breaking force was by no means regular in its quantity, for the resistance varied constantly according to the manner or direction in which the opposing force was applied. It could not, therefore, be safely adopted as a datum in any strict or important calculation. This gentleman also stated that the extreme point of elasticity was a

much safer basis to reckon upon, for it bore strict relation to the length, cubic size, and toughness of the materiel. Mr. Cottam made several conclusive experiments to determine the point of deflection at which any given bar of cast iron could recover its form, a greater weight producing a permanent curvature. The measurement was effected by means of a graduated line suspended at a right angle with the bar subjected to examination, and which was placed horizontally. The pressure was applied in some instances through the medium of weights, in others by means of a Bramah hydrostatic press. A small but beautifully constructed machine of this kind was employed for the purpose. After numerous experiments, Mr. Cottam adopted as a starting point in his calculations, the fact that a bar of cast iron of ordinary quality, a foot long and an inch square, had elasticity sufficient to recover from a weight of 850 pounds. Thus a medium is discovered for ascertaining the resisting force of a bar of iron of any size, this force being always in the inverse ratio of the length of the bar, in the direct ratio of its width and of the square of its depth. The lecturer enumerated instances of errors which had appeared in the calculations even of eminent artists on this point, and stated it was a rule in his practice to take as a datum for his calculation a force somewhat less than sufficient to overcome the elasticity. He also alluded to the injurious effects induced in the *grain* of the iron by the fantastic forms occasionally prescribed by architects; for every complication of shape adds to the risk of producing flaws in the metal through the intervention of bubbles of air, and particles of sand, or other extraneous matters. As an illustration of the safety ensured by cast-iron supports and joists to floors, Mr. Cottam stated, that in estimating the resisting force to be given to a dancing-room floor, he had allowed a square foot of space for every individual present, and consequently supposed the room packed, and every person in contact breast and back, (a degree of crowding, by-the-bye, that would inevitably produce suffocation,) that each person weighed twelve stone, and were engaged simultaneously in vaulting. The impulse thus imparted would amount to 60.bs per square foot. To meet this supposed weight, he supplied a counter-force of 150lbs. per square foot in the form of square iron joists.

On the library table was exhibited an ingenious automatic drawing machine, called the "Perspective Tripod," and also a curious prehensile elastic hook, adopted as a substitute in case of amputated fore-arm.

HUNTERIAN MEDICAL SOCIETY OF EDINBURGH.

At the last meeting of this Society, for the session which has just terminated, Mr. Harrison read a paper on Injuries of the Head; and Mr. N. Rogers, Senior President, delivered, as is usual, a valedictory address, in the course of which he took a retrospective view of the proceedings during the session, which he regarded as one of the most interesting which had been passed since the institution of the Society. He enlarged particularly on the all-engrossing subject of cholera, alluded to the prompt and efficient attention which it had received both in that Society and the City, and quoted the high eulogium of Dr. Chalmers on the medical arrangements of Edinburgh; arrangements which had been the universal and unqualified theme of admiration. This led to some observations on the reception which the disease had met with in London, and the earnest but unheeded warnings of some of the medical journals. A short review was then taken of the progress of medical literature during the past year, adverting particularly to the Cyclopædia of Practical Medicine, and the Dublin Medical Journal, which latter subject led to some remarks on the eminence of the medical corps, and on the rising medical school of that city. The address of Mr. Rogers was delivered to a very numerous audience, and was received with marked applause.

WESTMINSTER HOSPITAL.

HYPERTROPHIA AND ENLARGED CAVITIES OF THE HEART.

Sarah Barlow, aged 25, with a pale skin and fine complexion, light hair and eyes, and thick lips, was admitted on 7th March ultimo, with excessive action of the heart. She has been subject to palpitation for these five years, and has in consequence been several times in this hospital. She now complains of acute pain in the cardiac region, dyspnœa, and violent beating of the heart, which are excited even on walking across a room. The pain is most severe down the arms and between the shoulder blades, and there is headach in the occipital region. The heart's action is heard over an unusual extent, and its impulse is stronger than natural, and an occasional irregularity is perceptible in the contraction both of auricles and ventricles. Pulse equal at both wrists, weak, and 102. The respiration is easy, but louder than common, and interrupted by deep-drawn sighs,

which relieve the feeling of oppression at the base of the sternum. She has slight cough, but no expectoration. The chest sounds well on percussion; surface rather cold, especially at the extremities; tongue exsangueous, clean, and flabby; habit of bowels very loose. The appetite is good, and the catamenia are regular; she sleeps but little, and even then often starts, imagining she is falling. Fish diet; and the following powder to be taken three times a day:—

Dover's powder 5 grains;
Tartrate of iron 10 grains.
Mix into a powder.

March 14. She has gradually improved since admission until last night, when she was suddenly affected with the greatest pain in the chest for three hours. The heart beat with great force, frequency, and irregularity; the countenance became anxious, and the skin was bathed in perspiration. Assisted by an antispasmodic draught, the paroxysm went off. To-day she is better; pulse 80; remedies continued.

23. She had been put on full diet for a day or two, when a violent attack of palpitation, such as has been described, came on, attended with acute pain under the left breast. The heart's beats could not be counted. She was relieved by the administration of a *henbane* draught; but in the evening the attack returned with increased violence. These attacks are considered due to the "full diet" to which she has been subjected; she is therefore put upon low diet, and discontinues the use of the iron powders.

24. The patient is much quieter this morning; the face is pallid; tongue chopped, and the bowels open. The following pill is administered:—Take of *opium* gr. ss, *sulphate of iron* gr. ij. Mix into a pill, to be taken twice a day.

April 1. The patient is much improved; she sits up, can exert herself moderately without inconvenience; colour heightened, and appetite strengthened.

9. Another paroxysm came on yesterday after slight exertion. The pain in the region of the heart is so violent, that she cannot turn without assistance. Each systole of that organ is as a blow from a sledge hammer, and the accompanying dyspnœa is consequently hideous; pulse 114. To be cupped on the affected part to twelve ounces, and an anodyne draught to be administered.

10. Much relieved by the cupping; pulse 90; considerable tremor.

24. From the last date the patient continued to improve; her appetite soon recovered, and under the influence of tartrate of iron she soon gained flesh and colour. The catamenia are right in all respects; the bowels are regular, and the sanguiferous and nervous systems are perfectly tranquil, except when excited by any slight shock, which always produces a temporary increase of action. She was discharged yesterday as convalescent.

PLEURITIS ATTENDED BY EFFUSION BETWEEN THE SURFACES OF THE PLEURÆ.

Jane Hambling, 24 years of age, a servant, was admitted the 20th March, having acute pain of the left side. She had had tolerable health all her life-time, until the last month, when she was affected with the symptom first mentioned, which was attended by cough. The pain has continued increasing up to the present period; and the cough was provoked by every attempt to make a full inspiration. She had headach also, and pain in the back.

On admission she presented the following particulars:—The patient tall and well-formed, and has a remarkably fine skin, which however is at present dotted with a few papular points. The thorax is of proper symmetry and dimensions, except perhaps a slight fulness perceptible in the left side. Respiration 34, painful, and producing cough. Its murmur is not audible in any part of the left side of thorax, but it is puerile in the right. Percussion produces a dull sound over the whole of the left side, and laudable responses in the corresponding points of the right side. Pulse 112, full and soft; tongue furred on the *left half only*. Bowels open. On applying the stethoscope, with the stopper in, on the posterior phase of the left thoracic region, and in the convexity of the 5th and 6th ribs, a very distinct œgophony is perceived, corresponding to the patient's voice. On the opposite side no such phenomenon is discovered. Face flushed, and countenance anxious. Venesection to ℥viij; half a drachm of ipecacuanha wine to be taken in camphor julep, every two hours.

22. Blood slightly buffed. The patient breathes more freely and less frequently; the same stethoscopic signs are extant, and the œgophony is remarkably distinct. Pulse 112, same character; tongue furred on the same side. Bowels open. Venesection to ℥viij; remedies continued.

24. The pain of side relieved by the last bleeding; pyrexia diminished; face flushed notwithstanding; dilates the chest a little more. A very feeble respiratory sound is detected by the stethoscope. Œgophony still evident, though less distinct; tongue still furred on one side; bowels not open since yesterday; pulse full, and about 90.

25. A return of pain in the affected side, with aggravation of symptoms. Venesec-

tion to ℥xij. Half a grain of tartrate of antimony every two hours.

27. Feels better; can dilate the chest with more freedom and without pain. The respiration on the left side is now distinguishable by the naked ear. The *puerility* of that on the opposite side is lessened. The cough is less. Percussion now evokes a tolerable sound in the affected side. The œgophonism is still perceptible in the same place; the tongue presents the same curious features; the pulse is 92, and soft. A nausea is kept up by the antimony. A warm bath.

29. A return of pain and dyspnœa; a blister to the side.

April 1. The patient was relieved by the blister, and is much improved; an occasional pain, however, annoys her under the left clavicle. The respiratory murmur is equally distinct on both sides. Percussion educes natural sounds, and œgophonism is distinguishable. Tongue clean; bowels open; pulse 92, and full. *Eight leeches to the pained part.*

5. The patient is much better, but she still has pain in the left side upon coughing, which she does frequently; the respiration nearly natural; the countenance is slightly anxious; a blush mantles each cheek, and forms a striking contrast with the clear white of the skin generally; the tongue is again furred *on the left side only*; bowels open; pulse feeble; 130 on sitting up, somewhat less in the recumbent posture. In the evening she has febrile exacerbations. She sleeps well, and has no night perspirations. Fish diet; and the following pills three times a day: *Foxglove powdered, squills, and ipecacuanha, of each a grain;* to be made into a pill with a proper medium.

9. The patient has been materially benefited by the last medicine. The pulse is 100, full. The cough is less urgent. The tongue is furred, bowels confined. The respiration easy, but a little accelerated. To omit the pills, and resume her original ipecacuanha mixture. The phthisical diathesis is less evident than formerly.

May 1. The patient has continued to improve since the last date, though with an occasional disposition to relapse. This was obviated by leeches, &c. The patient's appetite is now good; her bowels regular. She sleeps well. The pulse is 80, full, and soft, and she appears perfectly free from pleuritis and from hydrothorax. The delicacy of her constitution being great, she is detained in the hospital until finer weather and her more complete convalescence shall render her on departure secure from the risk of relapse.

JAGGED WOUND OF THE HAND.—HEMORRHAGE FROM THE PALMAR ARCH.

March 27, 1832. James Stanson, 30 years old, a mechanic in the employment of Mr. Southam in his saw-mills at Pimlico, whilst applying a block to the saw, slipped, when his right-hand became entangled and severely lacerated. A copious hemorrhage immediately took place, and was evidently arterial. It was however promptly stopped by Mr. Knox, the cupper to the hospital, who happened to be present, and who made pressure on the brachial artery. The man was brought to the hospital immediately, and on being inspected by the surgeon on duty, it was found that the palm of the hand had been actually *minced* by the teeth of the saws. Both palmar arches were wounded, and the hemorrhage was profuse. The capsules of the first joint of the index and ring fingers were also cut open. It was determined, after a careful examination, to take up the several bleeding points that should present themselves rather than tie the ulnar or radial, or both, above the wrist. Several ligatures were accordingly applied, and the hemorrhage was arrested. The sides of the wounded chasm were then approximated, and the ends of the incised tendons brought as near each other as possible by closing the hand. He was carefully placed in bed, cold lotions were applied over the hand and arm, and aperient medicine was administered.

28. The patient passed a restless night; he is feverish; there is a good deal of pain and heat in the wounded hand. The bowels have been well opened; cold lotion continued.

29. Much inflammation of the affected arm; pulse 90, hard; headach; furred tongue; fever; bowels opened by the medicine. Venesection to ℥xvj. He was relieved by the bleeding.

30. Considerable phlegmasia still remains. The absorbents are becoming red and painful. Tongue furred; great pain of the hand, reaching up to the shoulder; bowels open. A bread poultice applied to the hand.

April 1. The febrile symptoms are more urgent than ever. There is heat, restlessness, rigors, furred tongue, headach, and torpid bowels. The pain and inflammation of the hand are very high. The absorbents, too, are decidedly inflamed, and the axillary glands are tumefied. Venesection to ℥xvj. Calomel bolus to be swallowed at bed-time; saline medicines at proper intervals; the hand to be involved in a poultice, and the track of the morbid absorbents to be washed with a strong solution of argentum nitratum.

April 6. The remedies last noted were attended with the happiest effects. The

fever and inflammation subsided considerably. The lunar caustic proved perfectly effective in stopping the herpetic inflammation of the lymphatics. The general appearance of the patient is consequently much improved, but a collection of pus is evidently forming above the wrist, apparently in the theca of the tendons.

24. Mr. Taylor opened the collection of matter alluded to. It was situated in the theca of one of the tendons of the flexor sublimis. The ligatures came away on the 20th day. The wound has nearly healed, and will have comparatively a narrow line of cicatrix. All the fingers are curved naturally towards the palm. He has, however, as yet but very imperfect command over them.

May 1. A few granulations have sprung up above the level of the adjacent integuments, otherwise the hand is perfectly healed. Some of the tendons appear to have united, for he has acquired some power of flexion over the fingers. Their lateral movements through the medium of the inter ossei remain unhurt. His general health is quite re-established, and his spirits are good. The hand will experience very little injury in an operative point of view, for the functions of the thumb are perfect, and he has consequently sufficient prehensile power for his peculiar art.

LONDON HOSPITAL.

CURIOUS INJURY.—FRACTURE OF THE SKULL.

April 12.—A man was brought into the accident ward of this hospital with a lacerated wound of the right upper eyelid; he stated, that while working on board a ship discharging coals, a hook which they use for raising the coals caught his eye, and he was elevated to the height of several feet before he could be extricated, when he withdrew the hook himself. On his admission here, he did not appear to be suffering from any serious accident; the eye was found to have escaped injury, and no fracture could be detected; his respiration natural, pulse 76, full, but not more than might be expected in a robust man, pupils obedient to the stimulus of light; has no pain in the head. *V. S. ad* ʒxx; *Cold lotion to the forehead; Hydr. submur. gr.* ij *om. 2nd hor.*

13th. Passed a quiet night; pulse 74, full, free from hardness, has very little pain in the head; bowels opened three times:—*Hirudines* xij *fronti. To continue the calomel.*

Evening, six o'clock. Symptoms of compression of the brain very suddenly came on; his breathing became stertorous, pupils contracted, and insensible to the stimulus of light; pulse 52 and labouring; cannot be roused by any noise; at this time a quantity of blood mixed apparently with cerebral substance, to the amount of about two ounces, escaped from the wound.

V. S. ad xx oz.; *blood buffed and cupped; Hirudines* xx *temporibus.*

He lingered on in this state till two o'clock the following morning, when he died. On an examination post mortem, the orbitar plate of the os frontis was found to be completely smashed, and a considerable portion of the anterior lobe of the right hemisphere of the brain wanting, it having escaped through the wound.

When the companions of this man found that they had elevated him by the chain and hook, they suddenly let go the rope in alarm, and the poor fellow was thus let fall heavily on the deck.

COMPOUND FRACTURE OF THE TIBIA AND FIBULA.

W. F., ætat. 50, was admitted on the night of the 18th April, with compound fracture of right leg.

The seat of the fracture was in the lower third of the leg; about two-thirds down the leg was a small wound through which the upper fractured portion of the tibia protruded; this bone was also fractured about one inch and a half lower down. The fibula also was fractured.

The account he gave of the accident, which occurred but a short time before his admission, was, that while walking on the side of the road his foot slipped, and he fell with his leg under him, partly resting on the curb stone.

The portion of bone that protruded was small, and by means of moderate extension it was reduced, and the ends of the bone brought into opposition. The limb was placed in the straight position, with splints, and cold lotion ordered to be kept constantly applied. *Tinct. opii,* M. xl, *statim sumend.*

19. Slept but little; pulse 86, full; complains of pain in the leg, which is hot and swollen; to have twenty-five leeches applied immediately, and afterwards the cold lotion. *Tincti. opii.* M. xxx *h. s. s.*

20. Passed a restless night; pulse 84; tongue moist and tremulous; skin cool and moist; bowels confined; has no appetite; limb feels hot and painful. *Ol. ricini* ʒj, *statim s.*; and the following draught:—℞ *Mist. salinæ; mist. camphoræ* aa ʒvj; *Tinct. opii* M. x, *ft haustus, 4tis hor. s.; Tinct. opii* M. xxx *hora somni sumendus.*

21. Passed a tolerable night. Bowels open three times, skin cool, tongue clean,

has no appetite, is rather thirsty, pulse 88; the limb is swollen and painful. To continue the medicine and anodyne.

22. Slept four hours during the night; pulse 94, soft; tongue clean, bowels open, skin hot, but moist, appetite bad, takes nothing but a little tea: to have twelve leeches to the leg, and to continue the medicines.

23. Pulse 104, moderately full; tongue slightly furred, bowels open, countenance anxious, skin cool, appetite none; has considerable tremor of the hands. To continue the draught as before ordered, with the addition of *Tinct. opii*, M. x.

24. Pulse 110; slept for four hours during the night, skin warm, but moist; bowels open, tongue slightly furred and tremulous, with considerable tremor of the hands. To continue the medicine as last ordered.

In the evening violent delirium came on, so much so as to require the restraint of the strait-waistcoat.

25. The delirium continued throughout the night; pulse 104, weak; skin cool, and covered with a clammy perspiration:—R *Mist. salinæ* ʒiss; *Tinct. opii*, M. xx. *ft. haust. omni hora s.; Hirudines* xx *stat. applicand.* He continued in this state until nine the following morning, when he died.

We could not learn if any post-mortem examination was made.

INJURY TO THE SIDE.

J. N., ætat. 78, was admitted on the 18th of March, with injury to the left side. This man was employed by the water-side, when a log of timber slipped, threw him down, and fell upon his side. On his admission here, a fracture of the left seventh rib near its angle was readily detected; the breathing was considerably affected; severe pain on coughing, pulse full and frequent, tongue foul; he was bled to ʒxvj, and a broad flannel roller applied round the chest. He was ordered—*Hydr. submur.* gr. ijss; *Pil. scillæ Comp.* gr. iv; *quarta quaque hora sumend.*

19. Slept but little, his cough being very troublesome; feels great pain on pressing the injured part; pulse full and strong; bowels open, tongue white, expectorates with difficulty: some viscid mucus:

20. Passed a very indifferent night; complains of severe pain in the chest on coughing, or making a deep inspiration. To be bled to ʒxvj, and continue the pills.

21. Blood drawn yesterday buffed and cupped; feels greatly relieved in his chest; pulse considerably reduced, skin cool, tongue clean; complains of his mouth being sore.

22. Passed a good night, but complains of his cough; pulse full, but soft; appetite bad, tongue clean, bowels confined:—R *Ol. ricini* ʒss *stat. sumend; Mist. salinæ* ʒiss; *Tinct. scillæ* M. xv.; *4tis hor. sumend.; Emplast. lyttæ sterno.*

24. Feels much better; cough much less troublesome; has very little pain in his side; pulse moderately full, tongue clean, mouth very sore, bowels not relieved yesterday: to take a dose of house medicine.

28. From this time he gradually recovered, and was discharged quite well on the 19th of April.

Note.—The correspondent "A London Hospital Pupil," who pretends to reply to the report of the 31st March, of an hydrocele case, seems to imply that the notice of this case was incorrect. I can only state, that up to the 10th of March, the last date of the report (not the 25th as the "Pupil" says), the case presented every appearance of failure of the operation. I am happy to say the conjecture which I then formed as to the result has proved premature, and that it is true that the patient has since been discharged cured.—Rep.

SUPPOSED CHOLERA IN CUMBERLAND.

To the Editor of The Lancet.

Sir,—I perceive from a constant and regular perusal of your excellent journal, The Lancet, that this all-engaging disease, the cholera, constitutes at present the chief topic of discussion in the medical societies in the metropolis.

While this disease arrests the attention of almost every thinking person in and about the great city, it does no less so here in this remote part of the country; for no sooner is a person seized with vomiting and purging, than it is at once pronounced to be a decided case of cholera, (and by some professional men it is called *Asiatic* too), notwithstanding the absence of the leading features of that formidable disease, viz.—spasms of various parts of the body, especially the extremities, rice-coloured dejections and ejections, suppression of urine, &c. &c.

On reading over your Number of March the 24th, my attention was particularly attracted by Mr. Dobson's account of the epidemic cholera of Leeds in 1825, as a disease bearing some resemblance to it, which is and has been prevailing here for some time past. I have attended during the last eight months several cases of a disease here, which invariably commenced with vomiting and purging, or with vomiting and dysentery, but always unaccompanied (as far as my observations go at least) with spasms of the extremities, or abdominal muscles, the matter vomited and dejected being

also almost always either of a dark-green or a dark-brown colour, and of a bilious nature.

The urine, in many cases, was also of a deep-brown colour, and I could never observe any suppression of it. In addition to these symptoms, there were, great prostration of strength, depression of spirits, and a sense of sinking or fainting. The face was sometimes pale, sometimes flushed; great thirst; tongue sometimes moist and white, at other times white and dry; a small quick pulse; fever, for the most part of the continued typhoid kind. It is rather remarkable that no blood was ever observed in the stools either by myself, the patients themselves, or their attendants. The pulse was generally fuller and stronger in cases attended with dysentery, than in those accompanied with diarrhœa, but the other symptoms were mostly the same.

I have often observed too that, in the course of a few days after the onset of the complaint, patients complained of more or less pain in the region of the liver, both in cases of purging and dysentery; that the tunica conjunctiva became more or less yellow, while there was no such appearance in any other part of the body.

The cases I mention bear a strong resemblance to those mentioned by Mr. Dobson, in his report of the epidemic cholera of Leeds in 1825. I think all practitioners ought to be very careful in deciding and giving their opinions on these cases at first sight, since the public mind has become so much excited and alarmed by the fatal and destructive tendency of this very formidable disease. Besides, too, it would often save their own reputations, as I have heard of many cases occurring to neighbouring practitioners of a similar nature to those I have described, which by them were pronounced to be decided cases of *Asiatic cholera*.

Now, Sir, I have been in the *East Indies* myself, but the symptoms of the epidemic prevailing here are very different from those attending the formidable and *gigantic* disease of the east. I, of course, regard the disease which is now so prevalent here, as fever attended with an unusual degree of functional derangement of the biliary organs, and an increased and diseased action in the mucous membrane of the alimentary canal. I have attended a great number of cases but none have proved fatal, except that of the child, whose case I have already mentioned.

I am, Sir, your obedient servant,

E. WILKINSON,

F.L.C.M., L.R.C.S.E. & A.H.L., &c.

Aspatria, Cumberland,

April 27, 1832.

At a public examination of the pupils attending Dr. Stratten's Lectures on Materia Medica and Pharmaceutic Chemistry, held on two successive days, April 24th and 25th, 1832, Mr. Frederick Row of Plymouth, and Mr. Owen Roberts of Bodedern, Anglesea, obtained premiums for their superior answering in materia medica and chemistry.

Next week, a new edition of Denman's Practice of Midwifery will be published, with additional Modern Information on the various Subjects treated of in the work. To which will be appended a Dissertation on the Transfusion of Blood in the more dangerous varieties of Uterine Hæmorrhage. By Dr. Charles Waller.

Received, Dissertatio inauguralis medica de Sanguinis in Periculosa Hæmorrhagi Uterina Transfusione. Auctore Carolo Waller, M.D., &c. Erlangæ. 1832. pp. 29.

CORRESPONDENTS, &c.

Visitor. — *R. X.* — *Edinburghensis*, and others. Our pressing engagements render it impossible for us to comply with the numerous requests for personal interviews.

Castigator. JOE BURNS is not dead; "he only sleepeth."

M. P. It is impossible to answer the *first* question proposed, without a previous inspection of the indentures. With regard to the *second*, the paltry demand made by the not less paltry friends of the apprentice may be sustained, unless it can be *proved* that the youth was removed at *their* request, as well as in compliance with his own wishes.

Chirurgus draws an inference from insufficient grounds. It is no proof that a letter will not appear, because it is not immediately inserted. A communication may be intended by the Editor for publication during the current week, and yet the number not afford room for it. This it is usually very inconvenient to announce. Two or three weeks may elapse after a letter is in type, before arrangements which *must* be attended to will allow of its appearing.

Our Correspondents are requested to address all their letters to THE LANCET OFFICE.

The letter of a *Well-wisher*, *C.*, did not reach us until after the dinner had taken place.

The article in the Scotch newspaper, forwarded to us last week, is abundantly long, and yet we have failed to arrive at its precise purport. We certainly do not coincide in feeling with the writer, when he speaks of the raising of the infirmary salaries from 25*l.* to 40*l.* per annum, as an "indefensible" measure; nor can we admire the economy which would have saved the charity "fourteen or fifteen hundred pounds," by, amongst other things, wholly withholding remuneration from the medical officers! In all other matters the efforts of the "agitators" on the present occasion have our best wishes.

A Naval Surgeon. The diploma of the London College of Physicians is recognised by the medical department of the navy, but it is not usual for the "M.D." to be attached to the name in the navy list, unless the possessor be appointed to a physician's office.

"*An Eye Witness*" of the operation in the S——d G——l Infirmary is requested to send us his name and address confidentially.

1. The party so practising is liable to prosecution. 2. Yes; in any.

It is not customary with us to insert such articles from correspondents as the review of "Hints," &c.

A theory very similar to that of our ingenious correspondent *J. F.* has already been made public, and nothing will be gained by the insertion of his essay.